DEVELOPMENT OF SEARCH FILTERS FOR CLINICAL STUDY OF HERB IN PUBMED

By

MISS Preeyanat UTTAMAWETIN

A Thesis Submitted in Partial Fulfillment of the Requirements

for Master of Pharmacy HEALTH INFORMATICS

Silpakorn University

Academic Year 2022

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การพัฒนาตัวกรองการสืบค้นสำหรับงานวิจัยทางคลินิกของสมุนไพรจาก PubMed

โดย
นางสาวปรีญานารถ อุตตมะเวทิน

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรเภสัชศาสตรมหาบัณฑิต
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Since herbs are increasingly used as alternative medicines, clinical studies of herbs are crucial to clinical practice. However, finding clinical studies of herbs is difficult due to several factors, including the use of multiple names for the same herb, uncertainty regarding the bioactive components, and outdated scientific nomenclature. Although several clinical search filters have been developed, there are no search filters for clinical studies of herbs to date. This study aimed to develop search filters to retrieve articles reporting clinical studies of herbs. Articles from ten journals were handed-searched for clinical study of herbs. Search terms were extracted from the recruited articles using PubReMiner. Search strategies composed of one to four search terms were formulated and evaluated. Out of a total of 8,169 articles, 211 were clinical studies related to herbs. The performance of developed search filters were measured in the development and validation set. The search filters achieved effective performance, with the highest sensitivity achieving a perfect sensitivity of 100% and a specificity of 85% in the development set. The same search filters maintained a high sensitivity of 99% and a specificity of 85% in the validation set. Furthermore, the search filters with the highest specificity yielded excellent results, with a specificity of 99% in both the development and validation sets, and moderate sensitivity of 55% and 60%, respectively. When compared to PubMed's clinical study filter, the developed search filters were found to yield more relevant articles when using the same herb name. Search filters for clinical studies of herbs were developed successfully. The best search strategy is to use these filters with a name of herb that the researchers desire.

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CHAPTER 1

INTRODUCTION

1.1 Background and the importance of the problem

Herbal medicine is a type of medicine using plant parts, other plant components, such as roots, stems, leaflets, blossoms or seeds, or mixtures of these as active ingredients (World Health Organization, 2019). This includes herbs, herbal ingredients, herbal preparations, and final herbal products. Herbs can be used to improve health or function of the human body, prevent illness, and relieve symptoms by increasing strength of the structure of the body or reducing risk factors of disease (Wachtel-Galor & Benzie, 2011). The usage of herbal medicine varies across the world. Herbal medicine is often used in conjunction with Western medicine in some countries due to the complex nature of herbs and herbal products, which make them unsuitable as a substitute for a single pharmaceutical compound (Longden-Naufal, Rolfe, & Mackonochie, 2022). However, herbal medicine is still a preferred option for many individuals due to its connection with nature, tradition, and more holistic approaches to health. In certain developing countries, herbal medicine is even considered an essential aspect of culture (Ekor, 2014). Therefore, it is crucial for healthcare professionals to have access to reliable information on herbal medicine to ensure proper understanding of dosage and administration for safe and effective use, and to approach them with the same level of care and respect as conventional medicine.

1.1.1 The use of herbal medicine worldwide

In the United States, herbal medicines are used as alternative or supplementary medicine. Herbal medicines were used by 35% of people in the United States in 2015 (Rashrash, Schommer, & Brown, 2017). For example, in a survey of presurgical patients, 22% reported using herbal remedies, and 51% used vitamins to supplement their

healthcare regimen (Tsen, Segal, Pothier, & Bader, 2000). The study also found that women and patients between the ages of 40 and 60 were more likely to use herbal medicines. In terms of the most frequently used compounds, echinacea was the most popular, followed by ginkgo biloba, St. John's wort, garlic, and ginseng in descending order of popularity. In another study conducted between 2006 and 2018, 84.7% of patients with cancer used complementary or alternative medicine (CAM) to complement their conventional cancer treatment (Jazieh, Abuelgasim, Ardah, Alkaiyat, & Da'ar, 2021).

In the United Kingdom, herbal medicine is not part of standard treatments provided by the National Health Service (NHS) but can be purchased as an addition or alternative. However, healthcare professionals were found to be supportive of utilising herbal medicine when traditional medicines had been unsuccessful and if a patient had anecdotal evidence of a herb having been effective (Longden-Naufal et al., 2022). Some healthcare professionals consider that herbal medicine should be used alongside standard treatments (Zahn, Perry, Perry, & Mukaetova-Ladinska, 2019) like in many countries, including China, Japan, Korea, India, and Ghana, that have effectively integrated Western biomedicine and herbal medicine into standard healthcare systems (Zhang, Changli Xue, & Fong, 2011). Moreover, herbal medicine has increasingly gained attention from pharmaceutical companies due to the lack of effective pharmacological treatments to deal with chronic diseases including cancer and dementia (Zahn et al., 2019).

1.1.2 The use of herbal medicine in Thailand

In 2014, the National Health Survey conducted in Thailand revealed that approximately 21.9% of the country's population had used herbal and traditional medicines (National Health Survey, 2014). Kanjanahattakij et al. reported that a Thai worker population commonly consumed herbal and traditional medicines, especially those who have chronic illnesses using them more frequently, such as turmeric,

cinnamon, heart-leaved moonseed, and garlic (Kanjanahattakij et al., 2019). The increasing popularity of herbal medicine in Thailand has prompted the government to take notice and priorities the standardisation of its use in the healthcare system.

The Thai national model scheme of development of Thai herbs, Volume I (2017 - 2021), had assigned the Department of Thai Traditional and Alternative Medicine a mission which is to develop Thai herbs so that it becomes acceptable nationwide and applicable effectively (The Department of Thai Traditional and Alternative Medicine, 2016). There are four strategies of the Thai national model scheme in order to achieve the objectives. The third strategy aims to encourage the use of Thai herbs in the Health system in terms of treatment and enhancement of health, and develop Thai herbs to be one of the long-term alternatives of medicines for the Thai health system. One of the strategies, which the Department of Thai Traditional and Alternative Medicine encourages the use of Thai herbs, is to make the Clinical Practice Guideline (CPG) of Thai traditional diseases acceptable nationwide. In 2018, the committee who developed CPG of Thai traditional medicine in district 3 of Thailand invented a handbook of CPG for alternative medicines (The committee developed the Clinical Practice Guideline of Thai traditional medicine in district 3 of Thailand, 2018). The handbook includes the guidelines for the treatments of many diseases and conditions, such as diabetes mellitus, psoriasis, and syndrome of upper respiratory tract infection. In order to invent accurate and effective CPG, the physicians in the committee need to rely on empirical evidence from clinical studies of herbs to make the use of herbs reliable (Thamlikitkul, 2006, 2013).

1.1.3 Studies of herbal medicine

A considerable number of systematic reviews on herbal medicines has been published in various diseases and syndromes. For example, Sultana et al. conducted a systematic review and meta-analysis of premenstrual syndrome (PMS) on herbal medicine and nutritional supplements and found that using herbal medicine might be effective and

safe for PMS (Sultana et al., 2022). The studies in this systematic review mostly compared herbal extracts with placebo (Ataollahi, Akbari, Mojab, & Alavi Majd, 2015; Jafari, Tabarrai, Abbassian, Jafari, & Ayati, 2021) and standard medicine (Sharifi, Simbar, Mojab, & Majd, 2014). Similarly, SUN et al. conducted a systematic review and meta-analysis of randomised controlled trials on herbal medicine for the treatment of Coronavirus Disease 2019 (COVID-19) (SUN et al., 2020). The study found significant effects of using herbal medicine alongside Western medicine when compared with using only Western medicine for COVID-19 treatment. These herbal medicines were used in forms of combination of various herbs. Dementia is another disease that has been in several clinical trials with herbal medicines. Randomised controlled trials of the efficacy of herbal medicine used for dementia treatments mostly use only herbal medicine as intervention compared with placebo (Choi et al., 2022; Jung et al., 2021; Shi et al., 2020) and standard medicine (Choi et al., 2022). The herbal medicines were used in forms of extracts (Jung et al., 2021; Shi et al., 2020) and combination of various herbs (Choi et al., 2022). These studies found that the use of herbal medicines resulted in better memory function when compared to placebo and standard medicine.

1.1.4 Importance of retrieving clinical studies of herbs

With the increasing use of herbs, health care professionals should have a proper understanding of dosage and administration for the safety and efficacy of herbal medicine (Glisson et al., 2003). The lack of information about herbs may result in health care professionals being uncertain of how herbal medicines can be utilised and contribute to modern health care approaches (Bent, 2008; Carr & Santanello, 2019). Therefore, it is essential for health care professionals to timely access clinical studies and retrieve empirical evidence about herbs. However, finding articles about clinical studies of herbs can be difficult due to the complexity of terminology (Saxton & Owen, 2005). For example, there are multiple terms of the same medicinal herb (e.g., common name, scientific name,

or its bioactive chemical constituents) which may be difficult for searchers to find information about that particular herb.

Nowadays, we can retrieve clinical studies from reliable medical databases such as PubMed, Embase, and Scopus. One of the most commonly used online medical resources in the world is PubMed (Grossman & Zerilli, 2013; U.S. National Library of Medicine, 1975). PubMed is a database that contains over 33 million citations for biomedical publications from MEDLINE (U.S. National Library of Medicine, 2022), a trustworthy medical database. It also includes science journals and online textbooks. In addition, users can access PubMed via the internet without paying fees, causing numerous people around the world to use PubMed. Moreover, there are tools in PubMed helping users access MeSH (Medical Subject Headings) terms which are essential for developing search filters. MeSH terms provide uniformity and consistency to the indexing and cataloguing of biomedical literature.

A good retrieval approach will help us to retrieve relevant information rapidly and utilise this information promptly. However, it is difficult for researchers to retrieve and access medical literature from databases due to several reasons, including lack of standard search terms, lack of skills for narrowing down search terms, and search filter deficiency (Damarell & Tieman, 2016; Rietjens, Bramer, Geijteman, van der Heide, & Oldenmenger, 2019). According to Damarell & Tieman, physicians who have expertise in palliative care struggled with creating search terms (Damarell & Tieman, 2016). They found that most of them used too narrow search terms, and some used a single search term. Moreover, they discovered that few experts utilised Boolean operators inappropriately. These problems resulted in palliative care specialists finding fewer relevant articles than when they used Palliative Care Search Filter (PCSF) consisting of 9 Medical Subject Headings (MeSH) terms and other search terms, combining with Boolean operators. This PCSF helped physicians systematically and conveniently retrieve relevant

articles. Therefore, search filters are essential for making searching more effective and well-organised.

A search filter, a tool that allows users to refine search results, has become an important tool that facilitates searchers to retrieve relevant articles of interest. It is created by identifying and merging search terms in order to identify scientific articles with a similar feature (Jenkins, 2004). The InterTASC Information Specialists' Sub-Group (ISSG) has developed a website that includes different types of search filters in order to provide researchers access to published and unpublished search filters ("ISSG Search Filters Resource," 2006). Some search filters to retrieve clinical study about herb are, for example, a search filter for controlled clinical trials within CINAHL Plus (J. Glanville, Dooley, Wisniewski, Foxlee, & Noel-Storr, 2019) and a search filter for randomised controlled trials in MEDLINE (J. M. Glanville, Lefebvre, Miles, & Camosso-Stefinovic, 2006). Previous studies about search strategies for finding articles about herbs have been conducted. Saxton & Owen suggested strategies that researchers or health professionals could use to find information on herbs and other medicinal plants in MEDLINE using the PubMed retrieval system such as utilising optimal MeSH (Medical Subject Headings) terms and the PubMed's Clinical Queries feature (Saxton & Owen, 2005). Bardia et al. made a comparison of different search methods to find the best way to retrieve complementary and alternative medicine literature related to oncology (Bardia, Wahner-Roedler, Erwin, & Sood, 2006). Unfortunately, there are currently no direct search filters for clinical studies of herbs.

1.2 Objective

The aim of this study is to develop search filters to retrieve research articles reporting clinical studies of herbs in hope that they will be useful for retrieving information about using herbs.

1.3 Research hypotheses

Developed search filters for clinical study of herbs are effective for searching research articles in PubMed.

1.4 Research usefulness

Search filters for clinical study of herbs are effective for retrieving relevant research articles conveniently and rapidly, which will be beneficial for related professionals such as physicians, pharmacists, Thai traditional medical practitioners, and researchers.

1.5 Scope of research

This study is to develop search filters for retrieving research articles reporting clinical study of herbs. The search filters were developed from articles between January 1, 2019, and December 31, 2020.

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CHAPTER 2

LITERATURE REVIEWS

2.1 Definition of herb

Herbal medicine is a type of medicine using plant parts, other plant components, such as roots, stems, leaflets, blossoms or seeds, or mixtures of these as active ingredients to improve health, prevent illness, and relieve symptoms (World Health Organization, 2019). This includes herbs, herbal ingredients, herbal preparations, and final herbal products. The benefits of herbs are to improve health or function of human body, prevent illness, and relieve symptoms by increasing strength of the structure of the body or reducing risk factors of disease (Herbal Products Division Food and Drug Administration, 2019; Wachtel-Galor & Benzie, 2011).

There are multiple definitions of herb according to each country. In Europe, herbal medicinal goods are defined by the European Commission (Official Journal of the European Union, 2004) as any medicinal product that mainly contains one or more herbal ingredients, one or more herbal preparations, or a combination of active ingredients. In the United States (Ahn, 2017), one interchangeable term for herb is botanical drug which can be described as natural products derived from plant compounds such as algae and micro fungi. Although the term of botanical drug is similar to herbal medicine, it is different in term that botanical drugs include microorganisms in its definition.

However, according to the enactment of herbal products in 2019 established by the Herbal Products Division of Thai Food and Drug Administration, herbs were defined as natural products derived from plants, animals, microbes, or minerals that are blended or changed into herbal products (Herbal Products Division Food and Drug Administration, 2019). This definition has been broadened to include natural components from animals as well as minerals which differ from Europe and the United States.

Since the definition of herb varies among countries, it is important to clarify how the term will be used in this study. In this study, herb is defined as all-natural products that consist of active ingredients. These include products extracted from plants, fruits, animals (e.g., honey), microorganisms (e.g., mushroom, fungi), and minerals.

2.2 Clinical study of herbs

2.2.1 Definition of clinical study

The term 'clinical study' refers to a research study performed in human participants with scientific principles to further medical knowledge in order to evaluate medical intervention for practical use (Thamlikitkul, 2006). A clinical study is commonly used to determine whether a new treatment is more beneficial than the standard treatment and/or has fewer adverse side effects (U.S. National Library of Medicine, 2019).

2.2.2 Importance of clinical study of herbs

Plants have been used for medicinal purposes since the ancient period. People normally use herbs from their own experiences, inherited from their parents or ancestors (Thamlikitkul, 2013).

Due to the increase in herbal supplement sales, herbs should be investigated in clinical studies to make herbal medication more reliable (Carr & Santanello, 2019; Thamlikitkul, 2013). Thamlikitkul suggested that similar to new medicines, herbs should be demonstrated safety or efficacy in clinical studies before being launched to the market (Thamlikitkul, 2013). Moreover, Rashrash et al. discovered that most patients who use herbal medicine typically have medications for their conditions, for example, diabetes, heart disease, and hypertension (Rashrash et al., 2017). Therefore, healthcare professionals should consider herb-drug interactions in order to minimise incidental side effects of herbs which are harmful to patients, especially the elderly (Carr & Santanello, 2019). Therefore, it is essential for healthcare professionals to have access to evidence-based clinical studies of herbs so that they would gain knowledge about how to use herbal

medications effectively and safely. Accordingly, healthcare professionals can educate patients to ensure safe medication use. There is some scientific evidence about herbs, for instance in Andrographis paniculata, such as Hancke et al. (Hancke, Burgos, Caceres, & Wikman, 1995) and Saxena et al. (Saxena et al., 2010). Consequently, we can know about the safety and efficacy of Andrographis paniculata, and dosage regimens for upper respiratory infection.

2.3 Searching for evidence

One of the reasons healthcare professionals' searches for information is to find the most satisfactory quality information to respond to queries or verify facts of something (De Brún & Pearce-Smith, 2014). Furthermore, searching for information can help them remain updated with best practices, practice decision-making, exchange information with other healthcare professionals, provide information to patients, and have well-developed searching abilities.

2.3.1 Health information resources

There are three main resources for health and medication information, including primary, secondary, and tertiary literature (Garrard, 2017; UC Merced Library, 2022).

Primary resources are information that people can access to detailed information about a topic of their interests. For instance, these resources can be useful as a resource of information on a new drug or treatment and assist in narrowing down the scope of focus. On the other hand, using information from primary resources can lead to a false conclusion, especially when searchers rely on a single article as a reference. Moreover, users need literature evaluation skills and more time to estimate articles. Examples of primary resources are original research articles, conference proceedings, patents, and dissertations.

Information that indexes and organises primary sources to make them more accessible is called secondary resources. Secondary resources also refer to articles or other documents that summarise the original work of others as they are based on

information from primary resources. Generally, they are summaries of many articles written by people who did not originally conduct those research studies. For example, secondary resources, such as MEDLINE, include a chapter in a reference book that describes what is known about an illness or therapy, or the review paper you create when reviewing the literature. The benefits of secondary resources are to make primary resources more accessible and organised.

Tertiary resources contain information that has been condensed by an author in order to provide a fast and easy summary of a topic. Thus, they are handy and simple to use, and they are repeatedly used as a first information resource. Nevertheless, tertiary resources have the disadvantages of having less recent knowledge, being incomplete due to the writers' insufficient literature searches, and transcribing mistakes or human bias. A well-known example of tertiary resource materials is a systematic analysis or critical review of scientific papers. Other examples of tertiary resources are articles such as a critical review of scientific studies, Cochrane Library reviews, a meta-analysis, a systematic analysis, evidence-based medicine, or practice guidelines.

2.3.2 Online health and medication information resources

The majority of healthcare professionals use the Internet to search due to its speedy and easy access to knowledge about health and medication (Grossman & Zerilli, 2013; Peterson-Clark, Aslani, & Williams, 2010).

It is unsurprising that healthcare professionals use information from websites because they have more benefits than other available resources (Grossman & Zerilli, 2013). The Internet, for instance, allows free access to a variety of information resources including tertiary, secondary, and primary resources. Moreover, the Internet reduces the publishing lag time associated with conventional resources. Additionally, smartphones and tablets, which have been increasingly popular in recent years, can also be used to access web-based information from different places. Grossman and Zerilli listed five useful Internet resources, including the US National Library of Medicine's government-sponsored resources, other government-sponsored resources, organisation-specific

websites, commercial websites that provide general medication information, and miscellaneous websites like Google Scholar (Grossman & Zerilli, 2013).

The US National Library of Medicine (NLM), a part of the National Institutes of Health, is the largest global medical and biological library and a developer of digital information services that produces hundreds of billions of bytes of data every day for millions of researchers, health professionals, and visitors around the world (U.S. National Library of Medicine, 1975). Every user can use the NLM website to browse or download free knowledge, discover it using a search engine, or utilise an "app" that gives value-added access. At www.nlm.nih.gov, users can access the complete library or select electronic NLM resources; particular resources can still be easily reached without requiring the NLM Web site as a portal (Grossman & Zerilli, 2013). PubMed, DailyMed, ClinicalTrials.gov, and MedlinePlus are all useful NLM tools for professionals.

The PubMed database has been the most broadly utilised resource within the NLM (U.S. National Library of Medicine, 1975). PubMed, a secondary resource that provides access to primary and tertiary literature from journals and publications (Grossman & Zerilli, 2013), has been available since 1996 and includes around 27 million references (Grossman & Zerilli, 2013; U.S. National Library of Medicine, 2002). PubMed citations typically provide links to full-text articles on websites of publishers either or both in PubMed Central and the Bookshelf (U.S. National Library of Medicine, 2002). Links to article publisher websites are also provided, permitting one to view or buy a full article based on access limitations (U.S. National Library of Medicine, 2004). The majority component of PubMed is MEDLINE, the NLM journal citation database. It contains citations from over 5,600 scientific publications throughout the globe. Since the 1960s, MEDLINE has provided over 24 million citations to biomedical and life sciences journals back to 1946. Unlike other subscription sites that allow limited access to MEDLINE, such as Ovid and EBSCO, PubMed enables users to freely access MEDLINE (U.S. National Library of Medicine, 2002).

2.3.3 Problems with searching

The amount of information available online is large and growing. According to MEDLINE PubMed Production Statistics (U.S. National Library of Medicine, 2022), the number of MEDLINE citations cumulative total is projected to increase by about 1 million citations every year between 2015 and 2021. As a result, it is impossible to read and review all the literature because the results from a single search task can result in a massive amount of information.

The credibility of health information on the world wide web was poor and several researchers concerned with information accuracy and completeness. Some studies estimated the accuracy and completeness of Wikipedia's drug information and found that Wikipedia content was determined to be less accurate and complete than standard (Eysenbach, Powell, Kuss, & Sa, 2002; Kupferberg & Protus, 2011; Lavsa, Corman, Culley, & Pummer, 2011; Leithner et al., 2010). This is significant because Wikipedia usually appears at the top of search results pages for general health and medication issues and a number of healthcare professionals have stated that they use the site (Kupferberg & Protus, 2011). Furthermore, if the process of searching is performed without appropriate strategies, the searching result can be unsatisfactory (De Brún & Pearce-Smith, 2014). Therefore, effective searching is critical to save time and resources in order to obtain valuable information that is relevant, understandable, and trustworthy.

2.3.4 Effective search strategies

To avoid problems with searching, De Brún & Pearce-Smith suggested the key steps of finding the evidence: formulate a searchable question, select relevant resources to search, identify appropriate search terms, perform the search using thesaurus or free text searching and combine search terms, refine your search if necessary, and save your results (De Brún & Pearce-Smith, 2014). They also provide ten recommendations for efficient searching.

Firstly, make a searchable query out of the clinical problem and extract the keywords. De Brún & Pearce-Smith suggested searchers use the PICO structure to help retrieve specific desired results (De Brún & Pearce-Smith, 2014). The PICO structure is an abbreviation for a framework for developing clinically focused inquiries. The letter 'P' stands for patient, problem, or population; the letter 'I' represents intervention, such as treatment; the letter 'C' stands for comparison; and the letter 'O' represents outcome. Secondly, create a list of possible terms for each of the essential ideas, and do not rely only on a single term because you might lose relevant research. Thirdly, search only one resource at a time and for one keyword at a time while browsing databases. The reason is you may have to start over if you explore many of the terms at the same time and receive no results. Also, you can build diverse combinations of terms till you obtain the outcomes you need if you search for them individually.

Fourth, a searcher should begin with a thesaurus search and then add a free text search for the most satisfactory results:

1. Thesaurus searching

It is essential to consider the possibility of diverse spellings and terminologies for the same search topics in order to ensure that no literature is ignored. A thesaurus is a set of terms produced specifically for a database. Every paper contributed to the databases is also given a set of index terms, which create the thesaurus. By using the thesaurus to search for terms, only articles that are directly on that issue, as well as similar terms, will be shown, making the results much more relevant. MeSH in the database MEDLINE, controlled vocabulary, descriptor, subject headings, keyword, and index term are all terms that can be used to refer to a thesaurus. An example of MeSH terms that have been provided to a PubMed record is shown below (Arentz et al., 2017).

Figure 1 An example of MeSH terms that show in PubMed website page

This picture implies that papers on a similar topic should be allocated the same thesaurus phrases despite how the topic is presented in the content of the paper. As a result, exploring a database with particular thesaurus terms makes it easier to find information on the same subject. Nevertheless, it requires time for papers to be categorised, and there may not be an index word yet if it is an unknown intervention, thus it is necessary to merge thesaurus and free text searches.

2. Free text searching

Free text searches indicate that the database will go through all of the text for the phrase you only typed. Accordingly, it will not seek synonyms, plurals, or spelling variants. Wildcards (?) and truncation (* or $) aid to enhance retrieval by extending alternatives. For instance, clinic* will search on clinic, clinical, and clinically, and randomi?ed will look for articles that have both the British spelling for randomised and the American spelling for randomized.

To narrow down search results, users can specify the field name after the search term by enclosing it in square brackets. When searching for a specific word only in the title, users can append the word with [title]. For instance, searching for "hypertension[title]" limits the results to the word hypertension appearing only in the title. Similarly, to search for a term in both title and abstract, users can append the word with [title/abstract]. For example, searching for "clinical[title/abstract]" limits the search results to articles containing the term clinical in either the title or the abstract. Additionally, users can specify MeSH terms by appending the term with [MeSH terms]. To search for the word "Adult" only in MeSH terms, the user can enter "Adult[MeSH terms]" in the search box.

Next, uncover related or extra search terms from retrieved papers: Free text terms that are not being included in the abstracts and titles, terms from the thesaurus that were not included but should be, and citations at the end of the article.

Then, use OR to merge free text and thesaurus search terms for individual concepts. Afterward, combine the outcomes of each concept by using AND in order to search articles that contain all of the concept terms, and answer a question.

When there are too many results, review the approach and narrow the search. There are several methods to reduce results, such as using more detailed terms in free text, using thesaurus search rather than free text, using more precise thesaurus terms, and adding terms for different aspects of the query (for instance, the patient's age or gender) by using AND.

Conversely, review your strategy and expand your search if you are getting too few results. You can use synonyms or broader terms, use OR to add in terms of relevant meaning, mix outcomes of thesaurus and free text searches, and choose all subheadings when looking for thesaurus terms.

Then, reduce search results by the language of article, date, and publication type (such as randomised controlled trials, meta-analysis, or reviews) at the end of the inquiry.

Lastly, keep a record of the database name and the date of the search for future reference. If you set up an alert, you will automatically be notified when a new document matching your search criteria is added to the database. This is an excellent method to be up-to-date on your topic of interest.

2.4 Search filters

As mentioned earlier, a searcher needs to combine free text and thesaurus search terms with AND and/or OR to retrieve good results (Grossman & Zerilli, 2013). However, these processes can be inconvenient to use practically. For instance, a study by Damarell and Tieman found that professionals who specialise in palliative care struggled to come up with creating search terms (Damarell & Tieman, 2016). They also discovered that the majority of professionals used too limited search terms, and others only used one. Furthermore, they found that a few professionals misused Boolean operations (such as AND, OR, and NOT). Because of these issues, palliative care professionals found fewer relevant publications than they utilised the Palliative Care Search Filter (PCSF), which combines MeSH terms and other search terms with Boolean operators. This PCSF helped doctors systematically and conveniently retrieve relevant papers.

2.4.1 Definitions and benefits

White et al. have provided a definition of search filters: 'collections of search terms intended to capture frequently sought research methods, such as randomised controlled trials, or other aspects of health care' (White, Glanville, Lefebvre, & Sheldon, 2001). Similarly, Grossman & Zerilli use the term 'a methodological search filter' to refer to a search strategy that includes terms related to research methodology (Grossman & Zerilli, 2013). The search terms can be thesaurus or MeSH terms, free text, types of publication, or a mix of all three. A search filter can be used to find papers with the proper study design to answer a specific query. Hedges, optimal search strategies, research methodology filters, and Clinical Queries are all words used to represent search filters.

Methodological search filters, according to O'Rourke et al., will be a determinant role in how professionals conduct research (O'Rourke, Booth, & Ford, 1999). Besides, Bachmann et al. believe the search filter is a foundation in evidence-based practice information retrieval (Bachmann, Coray, Estermann, & Ter Riet, 2002). Search filters are designed to save time by providing a ready-made answer to inexperienced or overloaded searchers, allowing them to focus on other areas of the search (White et al., 2001).

According to Jenkins (Jenkins, 2004) and The ISSG Search Filter Resource website ("ISSG Search Filters Resource," 2006) that collects many different search filters for retrieving research based on study design or topic, there are two groups of search filters:

1. Classified according to specific study design: Systematic reviews, Randomised controlled trials, Qualitative research, Mixed methods studies, Non-randomized studies, Observational studies, and Quasi-Experimental Studies.
2. Classified depending on specific focus: Adverse effects, Diagnosis, Prognosis, Etiology, Treatment, Outcome measurement, Evidence-based healthcare, Guidelines, Health services research, Patient Views, and Quality of life.

2.4.2 Development of search filters

Jenkins has described four stages of developing search filters: identification of a gold standard, search term selection, evaluation of the search filter, and validation (Jenkins, 2004).

1) Identification of a gold standard

The term 'gold standard' refers to a set of relevant documents against which the search filter is tested and verified to determine how well it retrieves specific categories of records. Also, the 'reference standard' or 'reference set' is another

term for the relevant records. The gold standard ranges from one journal to 171 journals, most of which are selected from high-impact and medical journals published in English (Jenkins, 2004).

The source of the gold standard of medical literature can be journals that have published academic papers that require direct access only (relevant articles) (Golder, Wright, & Loke, 2018; van Hoorn et al., 2016), both journals that have desired academic papers directly published and randomised journals that do not have desired academic papers (Pols, Bramer, Bindels, van de Laar, & Bohnen, 2015; Rietjens et al., 2019), or randomise any journal from the database (J. Glanville et al., 2019).

Additionally, every research study has a definition of the relevant articles to be searched that have been referred by a reputable organisation and are directly related to the subject or issue to be explored (Jenkins, 2004).

2) Search term selection

The selection process for search terms is an important step in the development of search filters (Jenkins, 2004). Most search terms are based on the analysis of the frequency of words or phrases that appear in the title, abstract, and subject heading or MeSH terms. In addition, each search term is tested and mixed through trial and error or some search terms using a computer program to help select the best search terms. The tools that help searchers create search terms are PubReMiner (Damarell, Lewis, Trenerry, & Tieman, 2020; Pols et al., 2015; Rietjens et al., 2019; van Hoorn et al., 2016), AntConc (Pols et al., 2015; Rietjens et al., 2019), WriteWords (Golder et al., 2018) and SimStat program (J. Glanville et al., 2019).

PubReMiner is an online website where you may enter PubMed search queries to get a list of all keywords such as subheadings and title words and MeSH-terms linked with the articles in your search, as well as frequency tables (Damarell et al.,

2020; van Hoorn et al., 2016). The generated collection of keywords and MeSH-terms served as the foundation for creating search filters. The keywords were utilised with or without these fields: [tw] (text word), [tiab] (title/abstract), [majr] (MeSH major topic), [sh] (subheading) and [mh] (MeSH heading) (van Hoorn et al., 2016).

3) Evaluation of the search filter

Most studies use recall or sensitivity and precision as values used to determine the performance of search filters (Jenkins, 2004). Moreover, specificity, accuracy, and Number Needed to Read are used to estimate the performance of search filters (see Table 1) (van Hoorn et al., 2016).

Table 1 Performance measures used to calculate search filters

	Relevant papers	Irrelevant papers
Retrieved	A	B
Not retrieved	C	D
Total	A + C	B + D

3.1) Sensitivity (Se)

Sensitivity is a value that indicates the ability of the search filter to extract relevant papers from all relevant papers. A search filter with high sensitivity can be used when a relevant article is predicted to be insufficient when the other search filters fail to get enough relevant results. The Se is a fraction of relevant papers discovered compared with all relevant papers.

The formula of sensitivity is; Sensitivity = [A/(A+C)]×100

3.2) Specificity (Sp)

The Sp shows how specific the search filter is to searching relevant articles. If the effect of missing relevant articles is not considered significant (e.g. there is a considerable amount of relevant publications available), a high-specificity search filter might be used. Thus, a search filter with a high Sp will

decrease the results of discovering irrelevant papers. Specificity is calculated by the number of non-relevant papers that were non-retrieved when a search filter was applied to the query divided by the total number of non-relevant papers.

The formula of specificity is; Specificity = [D/(B+D)]×100

3.3) Accuracy (Ac)

Accuracy demonstrates how correctly the search filter can retrieve relevant papers and irrelevant papers. It is measured as the ratio of articles accurately retrieved using a search filter in the search over the total number of articles.

The formula of accuracy is; Accuracy = [(A+D)/(A+B+C+D)]×100

3.4) Precision

The number of relevant articles found as a percentage of the total number of articles is used to calculate the precision (Rietjens et al., 2019).

The formula of precision is; Precision = [A/(A+B)]×100

3.5) Number Needed to Read (NNR)

The average of the number of papers that must be screened before relevant papers can be discovered. It is calculated from the average number of papers that a person must screen before a relevant paper is discovered.

The formula of NNR is; NNR = 1/[(A/(A+B))]

4) Validation of the search filter

Validation of a search filter is another critical process in the development of a search filter because this process is a measure of how effective a search filter being developed is when it is actually implemented (Jenkins, 2004). There are two main types of validation depending on research articles that searchers validate.

4.1) Internal validation

Most studies use papers in a gold standard for validation. Some studies divide papers in a gold standard into 2 sets which are a development set (or the test set) and a validation set (Golder et al., 2018; van Hoorn et al., 2016). A development set is developed for selecting search terms while the validation set is for testing the performance of the search filter. However, some studies divide papers in a gold standard into 3 sets which are a term identification set (TIS), a filter development set (FDS), and a filter validation set (FVS) (J. Glanville et al., 2019; Rietjens et al., 2019). The term identification set (TIS) papers are used to choose search terms and find the appropriate word or phrase for a search. The papers in the filter development set (FDS) are used to find the best search filters by combining potentially relevant search terms from the term identification set (TIS). The papers on the filter validation set (FVS) are used for evaluating the performance of the best search filter from the filter development set (FDS).

4.2) External validation

According to Pols et al., the researchers used papers that are not in the gold standard to validate the search filter (Pols et al., 2015). The papers in external validation sets are made of the review standard and the questionnaire standard. In the review standard, it was developed using papers from a systematic review that was relevant. The questionnaire standard is an e-mail requesting volunteers or experts to submit relevant articles to the researcher. For the irrelevant articles, they were randomised from the PubMed database.

2.5 Studies about search filters

Each study has slightly different processes for developing search filters. However, there are four main stages in the development of search filters: defining a gold standard, selecting search terms, evaluating the search filter, and validating the search filter (Jenkins, 2004).

2.5.1 Studies of developing search filters in healthcare fields

There are a number of search filters that have been developed for many fields of studies. The ISSG Search Filter Resource website (J. M. Glanville et al., 2006) gathers many studies of developing search filters, for example, the search filter for adverse effects of medical devices (Golder et al., 2018), patient preferences for treatment outcomes (van Hoorn et al., 2016), and studies of family medicine (Pols et al., 2015).

These studies used similar methods for developing search filters with variation in each stage. For example, they use different databases for identifying a gold standard. As for the publication duration, van Hoorn et al. and Pols et al. included articles in one year, while Golder et al. included three years. In the search term selection stage, van Hoorn et al. and Pols et al. utilised PubReminer, while Golder et al. used WriteWords as the tools for generating search terms. During search terms evaluation, they used similar performance measures. One performance measure that all studies was Sensitivity (Se). In the validation stage, Pols et al. validated search filters against two external validation sets, while Golder et al. and van Hoorn et al. only used one internal validation set. The details of example studies have been summarised in table 2.

2.5.2 Studies of developing search filters related clinical study

Previous studies have developed search filters for retrieving clinical studies. Most studies created search filters for randomised controlled trials (RCTs) such as Glanville et al. (J. M. Glanville et al., 2006) and Glanville et al. (J. Glanville et al., 2019). Both studies used Wordstat for generating search terms and also used Se and Precision for performance measures. Another example of studies that developed search filters for retrieving clinical studies is a study by Waffenschmidt et al. who developed search filters for non-randomised studies from PubMed and Ovid MEDLINE (Waffenschmidt et al., 2020). Similarly, they used the same performance measures as Glanville et al. (J. M. Glanville et al., 2006) and Glanville et al. (J. Glanville et al., 2019) (Se and Precision) with

additional performance measures (Sp and Ac). The details of example studies about developing search filters related to clinical study have been summarised in table 3.

2.5.3 Studies of search filter about herb

To date, no previous study has developed search filters for clinical studies about herb before. However, there have been some studies exploring related evidence on herbal and other botanical medicines. For example, Saxton and Owen conducted a study that helped physicians and other healthcare professionals find clinically relevant evidence on herbal and other botanical medications via the NLM's PubMed search approach (Saxton & Owen, 2005). They suggested strategies that researchers or health professionals could use to find information on herbs and other medicinal plants in MEDLINE using the PubMed retrieval system such as utilising optimal MeSH terms and the PubMed Clinical Queries feature. Despite the fact that they gave a number of beneficial tactics for retrieving information on medicinal plants in MEDLINE, those methods were inconvenient and took longer to find the required results. Another study from Bardia et al. attempted to identify the best optimal search strategy for retrieving Complementary and Alternative Medicine (CAM) clinical trials in oncology (Bardia et al., 2006). The study involved comparing various search methods to identify the optimal approach for retrieving CAM literature related to cancer. They discovered that the available tools in MEDLINE are inadequate for retrieving CAM clinical trials in the cancer area. Though PubMed has a CAM filter that allows users to narrow their search to citations relevant to CAM, the PubMed CAM filter lacks specificity.

Therefore, this study aims to develop effective search filters that will allow associated professionals including physicians, pharmacists, Thai traditional medicinal practitioners, and researchers to retrieve research articles quickly and easily in PubMed reporting clinical studies of herbs.

Table 2 Example of studies about developing search filters in healthcare fields

Studies	Databases	Gold standard set sources	Tools for generating search terms	Performance measures	Validation	Results
Golder et al. (2018)	MEDLINE and EMBASE	Articles from the database Epistemonikos and HTA using the terms medical devices and safety were selected as systematic reviews and the years of publication was 2015-2017.	WriteWords	Se, and Precision	Three test sets and one validation set	The Se in MEDLINE and EMBASE was 83 % and 82 %, respectively.
van Hoorn et al. (2016)	PubMed	Articles from journals that had published in 2011 and related to patient preferences for treatment outcomes	PubReMiner	Se, Sp, Ac, and NNR	One development set and one validation set (1:1)	The finest search filters achieved a Se of 100 % and a Sp of 95 %.
Pols et al. (2015)	PubMed, Ovid MEDLINE, Embase, Cochrane	5 journals from Scopus with high ratings and 5 journals with low ratings (journals published in the year 2009)	PubReMiner and AntConc	Se, and Sp	Two external validation sets	The sensitive filter was 96.8 % Se, and 74.9 % Sp. The specific filter had a 90.3 % Se and a 97.4 % Sp.

HTA Health Technology Assessment, *Se* Sensitivity, *Sp* Specificity, *Ac* Accuracy, *NNR* Number Needed to Read

Table 3 Example of studies about developing search filters related clinical study

Studies	Databases	Gold standard set sources	Tools for generating search terms	Performance measures	Validation	Results
Glanville et al. (2019)	CINAHL Plus	RCTs from the CINAHL Plus database	SimStat software and Wordstat subprogram	Se and Precision	9 test sets and 2 validation sets	The validated filter showed Se of 0.88 and precision of 0.36.
Glanville et al. (2006)	MEDLINE	RCTs in four different years (1970, 1980, 1990, and 2000) from MEDLINE	WordStat software and Logistic regression analysis	Se and Precision	Both internal and external validation sets	The best search filter achieved 92.69% Se, and 81.03% Precision.
Waffenschmidt et al. (2020)	PubMed and Ovid MEDLINE	All controlled NRS study types (e.g., Quasi-randomized controlled trial, Controlled before-after study, Prospective cohort study)	McMaster Hedges list of terms, and an additional text analysis	Se, Sp, Precision, and Ac	60% development set and 40% validation set	The best search filter for sensitivity was 92.42% Se, 79.67% Sp, 68.49% Precision, and 83.79% Ac.

CINAHL Plus Cumulative Index to Nursing and Allied Health Literature, *RCTs* randomised controlled trials, *NRS* non-randomized studies, *Sp* Specificity,

Se Sensitivity, *Ac* Accuracy, *NNR* Number Needed to Read

CHAPTER 3

METHODS

This study was developmental research that aimed to develop search filters that are used to search clinical studies related to herbs. Search filters were generated and validated by using the methods by Jenkins and van Hoorn et al. with some modifications (Jenkins, 2004; van Hoorn et al., 2016). There are four key steps to proceed as follows:

1. Identification of a gold standard
2. Search term selection
3. Evaluation of the search filters
4. Validation of the search filters

3.1 Identification of a gold standard

Ten journals that were available in PubMed were selected. These journals included five journals directly related to clinical research of herbs and five journals not related to herbal clinical research. The relevance was considered from the purpose of the journal. The journals were selected based on impact factors that could be found in PubMed.

The five journals directly related to clinical research of herbs were:

1. Phytomedicine
2. Phytotherapy research
3. Journal of Ethnopharmacology
4. The American Journal of Chinese Medicine
5. Journal of Traditional Chinese Medicine

These journals were retrieved from PubMed when entering the terms “clinical study AND herb” in the PubMed search box. Initially, all results were saved as .CSV files with a total of 68 journals. The researcher then identified whether these journals were

related to clinical study of herbs by reading the aim and scope stated in their websites. 11 of 68 were journals directly related to clinical research of herbs. Finally, five journals that have the highest impact factors were selected to be a gold standard.

Another five journals not directly related to herbal clinical research were selected randomly after identifying that their aim and scope were not related to clinical study about herb. These journals had to be published in PubMed and were selected based on their impact factors.

The five journals not directly related to herbal clinical research were:

1. British Journal of Pharmacology
2. Clinical Pharmacology and Therapeutics
3. Pharmacological Research
4. International Journal of Pharmaceutics
5. Biomolecules

After selecting ten journals from PubMed, eligible articles were chosen from them by using the following inclusion and exclusion criteria.

Inclusion criteria

1) research articles or academic articles

2) be accessible to abstract

3) published in English

4) published date is in between 1 Jan 2019 and 31 December 2020

Exclusion criteria

1) review articles

2) editorials

3) comments

4) news

5) protocols

To find eligible articles based on the aforementioned inclusion and exclusion criteria, the search terms (shown in figure 2) were created and put into PubMed in the Query box of PubMed Advanced Search Builder as shown in figure 3.

("Phytomedicine : international journal of phytotherapy and phytopharmacology"[Journal] OR "Phytotherapy research : PTR"[Journal] OR "J Tradit Chin Med"[Journal] OR "Journal of Ethnopharmacology"[Journal] OR "The American Journal of Chinese Medicine"[Journal] OR "British Journal of Pharmacology"[Journal] OR "Clinical Pharmacology and Therapeutics"[Journal] OR "Pharmacological Research"[Journal] OR "International Journal of Pharmaceutics"[Journal] OR "Biomolecules"[Journal]) AND (2019/1/1:2020/12/31[pdat]) AND (fha[Filter]) NOT Review NOT Comment NOT Editorial NOT News

Figure 2 Search terms for identifying eligible articles

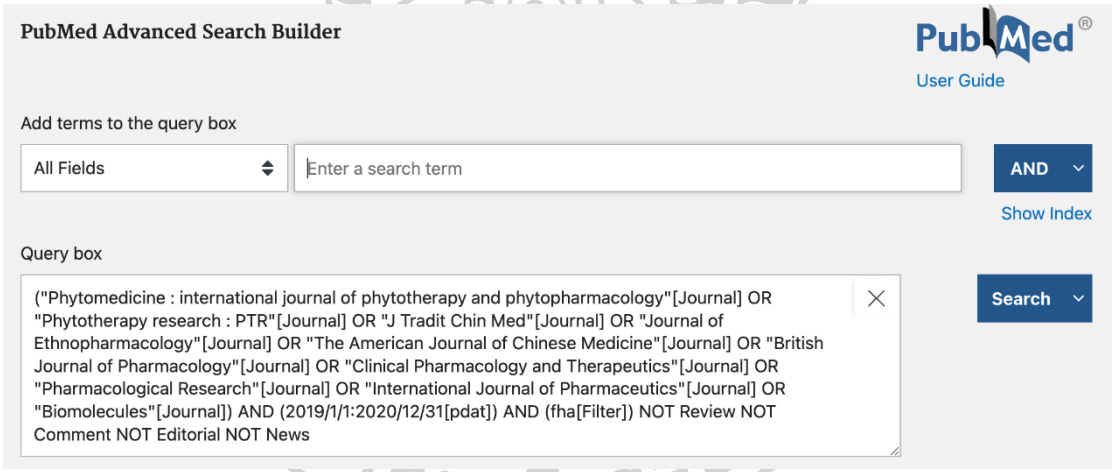

Figure 3 The Query box of PubMed Advanced Search Builder

The results from PubMed were saved as .enl files used in EndNote for screening articles by title and abstract to decide whether each article was relevant or irrelevant. Additionally, the results were saved as .CSV files and converted to .xlsx format for use in Microsoft Excel for labelling articles. Each of the articles was then manually labelled as “relevant” or “irrelevant” article by the researchers to create a gold standard. An article was considered “relevant” when it was a clinical study that specifically examined the effects of herbs, and “irrelevant” when it was not.

Definition of a clinical study

A clinical study was defined as a research study performed in human participants with scientific principles to further medical knowledge in order to evaluate medical intervention for practical use.

Definition of herbs

Herb was defined as any natural products including extract from plants, fruits, animals (e.g., honey), microorganisms (e.g., mushrooms, fungi), and minerals, that consist of medicinally active ingredients.

Labelling by each researcher was carried out separately and later cross-checked if there was any disagreement. The disagreement was resolved by discussion to establish consensus between the researchers. Thereafter, half of the relevant articles and half of the irrelevant articles were randomly selected and combined to generate a development set. The other half of relevant and irrelevant articles were pooled to generate a validation set.

3.2 Search term selection

Each article record in PubMed is assigned a unique identifier called the PubMed reference number (PMID). For the development set, PMID of all relevant articles in the development set were put into PubReMiner (https://hgserver2.amc.nl/cgi-bin/miner/miner2.cgi).

All PMIDs were put into a query: 'Start remaining PubMed for' then the researcher clicked 'Start PubReMiner' as shown in Figure 4. After clicking 'Start PubReMiner', the results, including Year, Journal, Author, Word, MeSH, Substances, and Publication type, would be displayed as shown in Figure 5. Only Words, MeSH terms, and publication types retrieved from PubReMiner were used to construct potential search filters (single search

terms). Terms that had a number of counts more than 20 in each type (words, MeSH terms, and publication types) were selected.

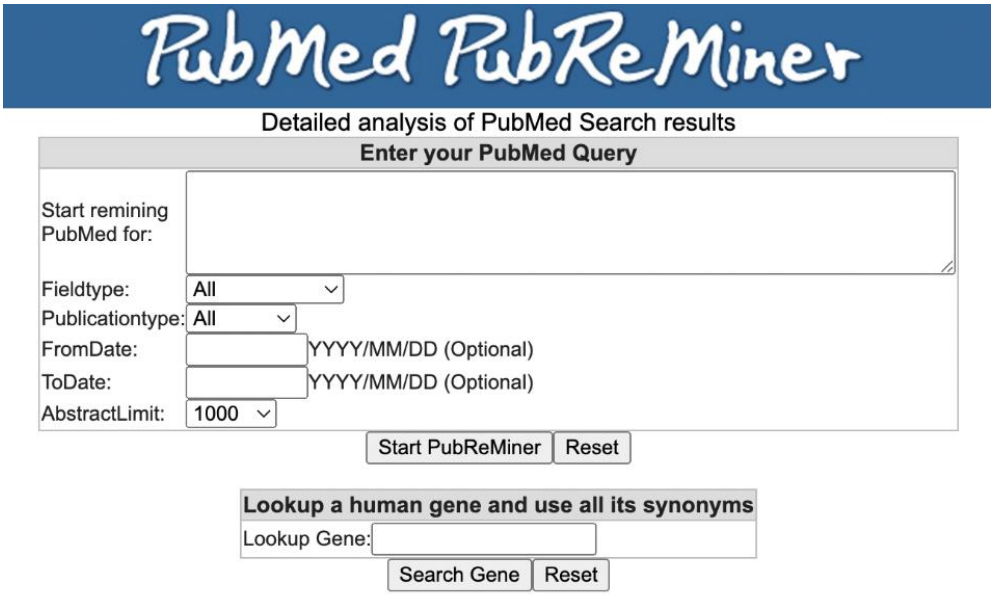

Figure 4 PubReMiner page where PMIDs were put into

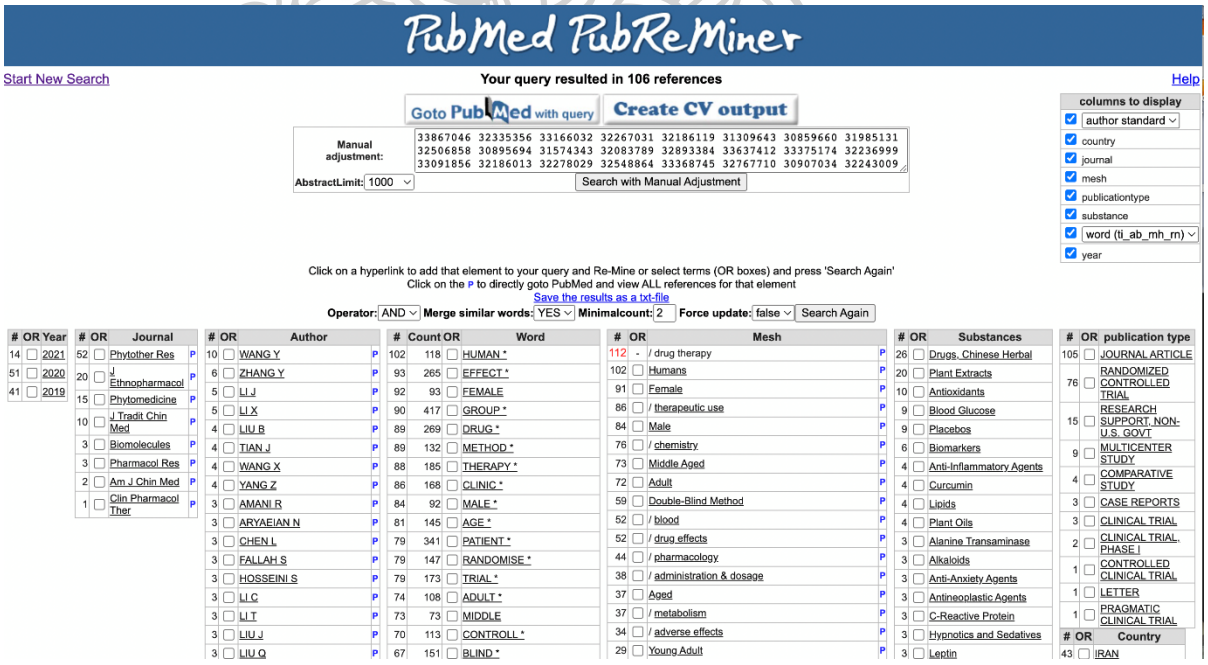

Figure 5 An example of results of the PubReMiner page after putting in PMIDs

3.3 Evaluation of the search filters

To identify performance measures, single search terms that had a number of counts more than 20 were combined with search terms in Figure 2 using an AND-operator. The combinations of these words were then put into advanced searching in PubMed to find articles. The PMIDs of all results were compared with articles in development set to identify performance measures. The performance measures were calculated by the following values to determine sensitivity (Se), specificity (Sp), accuracy (Ac), and Number Needed to Read (NNR).

- A refers to the number of single-term search results that share the same PMID with relevant articles in the development set.
- B refers to the number of single-term search results that share the same PMID with irrelevant articles in the development set.
- C refers to the total numbers of relevant articles in development set minus A
- D refers to the total numbers of irrelevant articles in development set minus B

All articles retrieved from PubMed were saved as text (.txt) and compared with the PMIDs of articles in the development set to see how many relevant and irrelevant articles they were in common and find the retrieval performance. The performance measures were sensitivity, specificity, accuracy, and NNR, using the formulas presented in Table 4. Sensitivity refers to a value that indicates the ability of the search filter to extract relevant papers from all relevant papers. Specificity shows how specific the search filter is to searching relevant articles. Accuracy demonstrates how correctly the search filter can retrieve relevant articles and irrelevant articles. The NNR is the average of the number of papers that must be screened before relevant papers can be discovered.

Table 4 Performance measures used to calculate search filters

	Relevant articles	Irrelevant articles
Retrieved	A (The number of relevant articles that share the same PMID with the relevant articles in the development set)	B (The number of irrelevant articles that share the same PMID with the irrelevant articles in the development set)
Not retrieved	C (The number of relevant articles in the development set that the search term failed to retrieve)	D (The number of irrelevant articles in the development set that the search term failed to retrieve)
Total	A + C (Total relevant hits)	B + D (Total not relevant hits)

Sensitivity: [A/(A+C)]x100; Specificity: [D/(B+D)]x100; Accuracy: [(A+D)/(A+B+C+D)]x100; NNR: 1/[A/(A+B)]

After evaluating single search terms, search terms that had a Se > = 25% and a Sp > = 75% were selected. Based on the methodology by van Hoorn et al. (van Hoorn et al., 2016), these selected search terms were combined with one another using the OR-operator to develop two-term search combinations. The combined search terms were evaluated for performance using the same methods.

Using “OR” between search terms made the search filter became broader and could retrieve articles that contain any of the search terms. As a result, more relevant articles were likely to be retrieved. However, the specificity and accuracy of the search filter decreased due to an increased number of irrelevant articles, resulting in an increase in NNR.

Finally, the two-term search combinations that had Sp, Se and Ac > = 90% were selected for further combinations (3 or 4 search terms) using OR-operator. When combining two-term search combinations together, if one of the terms was the same as another term from another two-term search combination, the results would be three-term search combinations instead of four-term search combinations. Performance of each search combination was evaluated.

3.4 Validation of the search filters

3.4.1 Internal validation

Top-five search terms or search combinations from each performance measure were chosen to be validated with articles in the validation set. The internal validation was conducted by using the same method as in the process of search terms evaluation, but all the terms were compared with validation set instead of development set.

3.4.2 External validation

Performance of those search terms were compared with the performance of PubMed's search filter for clinical studies, "clinical study[filter]". In order to do that, herb names from National List of Essential Medicines of Thailand and a list of most searched herbs (Hou, Deng, & Mao, 2019) were analysed in Google trends to find the three most-searched herbs worldwide from 1 Oct 2021 to 30 Sep 2022. Aloe vera, Ashwagandha, and Ginger were selected after analysis. Herb names combined with each top-five search term were put into PubMed to find search performance. The performance was also tested using PubMed's search filter instead of the top-five search filters. The search performance (i.e., number and percent of relevant articles) were compared.

It is worth noting that when validating the term "Ginger", the results were too irrelevant due to "Ginger" sometimes appearing as a person's name in articles. Therefore, the terms (("Ginger"[Title/Abstract]) OR ("Ginger"[MeSH Terms])) were used to remove "Ginger" as a person's name and only include Ginger as a herb.

3.5 Testing search filters with Thai herb search

The performance of five developed search filters was evaluated by applying them to search for clinical studies on 10 Thai herbs. These herbs are 10 commonly used Thai herbs in a hospital in Thailand (Ministry of Public Health of Thailand, 2023). The list of ten Thai herbs is displayed in Table 5.

Table 5 Lists of 10 commonly used Thai herbs

Scientific name	Common name
Andrographis paniculata	Green chiretta
Solanum indicum L	-
Phyllanthus emblica	Indian gooseberry
Curcuma longa L.	Turmeric
Cassia acutifolia Del.	senna
Derris scandens (Roxb.) Benth	-
Zingiber cassumunar Roxb.	Zingiber cassumunar
Clinacanthus nutans (Burm.f.) Lindau	Phaya Yo
Capsicum spp.	Chili pepper
Thunbergia laurifolia	laurel clockvine or blue trumpet vine

The names of the 10 Thai herbs (both scientific name and common name) were individually combined with the five developed search filters to search for clinical studies related to each Thai herb, limiting the results from 2018 to 2022. The performance was measured based on the total number of retrieved articles (Total), the number of relevant articles (R), the percentage of relevant articles (%R), and the F-measure.

The F-measure serves as a commonly used metric to assess the outcomes of information retrieval (IR) results (Kandefer & Shapiro, 2009). It provides a score ranging from 0.0 to 1.0, where a score of 0.0 indicates the lowest quality result, while a score of 1.0 signifies a perfect retrieval. The F-measure helps identify instances where the IR results include unnecessary information, referred to as ‘precision’, and instances where the results lack sufficient information, referred to as ‘recall’. The F-measure can be calculated using the following formula.

$$\text{F-measure} = 2 \times \left(\frac{Precision \times Recall}{Precision + Recall}\right) \quad (1)$$

$$\text{Precision} = \frac{TP}{TP+FP} \quad (2)$$

$$\text{Recall} = \frac{TP}{TP+FN} \quad (3)$$

TP (True positive): The number of retrieved clinical studies on Thai herb

FP (False positive): The number of retrieved non-clinical studies on Thai herb

FN (False negative): The number of non-retrieved clinical studies on Thai herb

The retrieval performance of the developed search filters was also compared to that of not using any search filters and to the clinical study filter provided by PubMed ("clinical study"[filter]).

3.6 Improving search filters

Because the developed search filters did not contain search terms related to herb, the following search terms were combined with top-five three/four-term search combinations from development set to make search filters become more specific for retrieving clinical studies about herbs: *Plant Extracts[MeSH Terms] OR HERB* OR TRADIT*[Title/Abstract] OR EXTRACT*[Title/Abstract].* These added terms derived from single search terms that had a Se > = 25% and a Sp > = 75% and related to herbs. These search filters were evaluated using the same method as evaluation of the search filters (see 3.5). The performance measures were compared with before adding search terms related to herbs.

CHAPTER 4

RESULTS

From 10 selected journals, 8169 articles were screened for clinical studies of herbs. A total of 211 relevant articles (2.58%) were chosen as a gold standard (a reference set) to develop search filters. The titles of the relevant articles were listed in Appendix 1. Out of 8169, 7958 were irrelevant articles. Types of irrelevant articles were displayed in Table 5. These types included Laboratory not related to herb (n = 4157), Laboratory related to herb (n = 3286), Clinical study not related to herb (n = 188), Clinical trial in animal (n = 132), Descriptive study (n = 50), Survey (n = 44), and others (n = 98).

Table 6 Types of irrelevant articles

Types of irrelevant articles	Numbers of articles
Laboratory (not related to herb)	4157
Laboratory (related to herb)	3286
Clinical study (not related to herb)	188
Clinical Trial in animal	132
Descriptive study	50
Survey	44
Others (e.g. Protocol, Systematic reviews, Meta-analysis, Ethnopharmacology, and Erratum)	98

The articles were split into two sets: a development set (n = 4085) and a validation set (n = 4084), each of which comprised 106 and 105 relevant articles, respectively (see Figure 6).

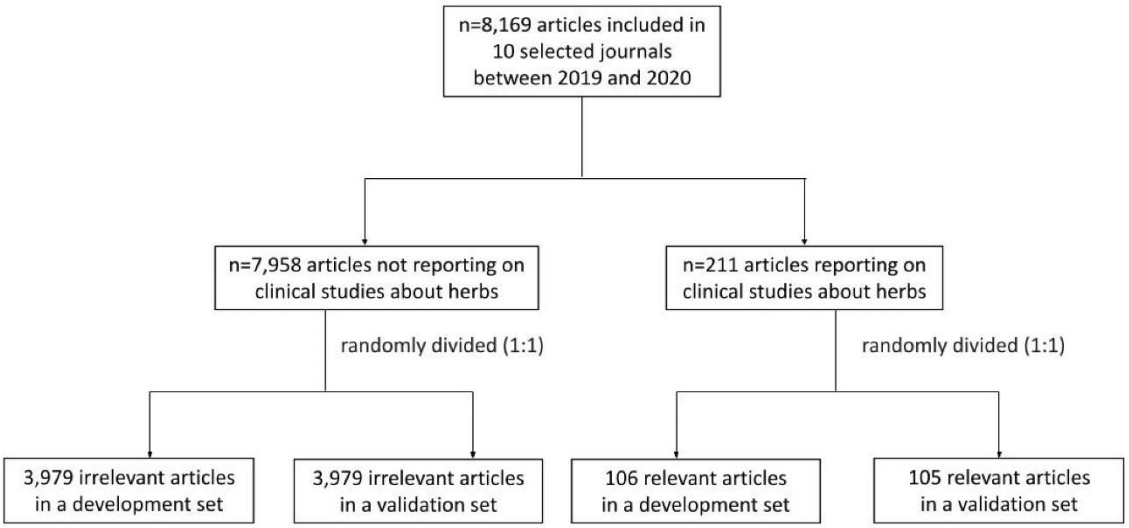

Figure 6 Creating a development set and a validation set

From 106 relevant articles in the development set, PubReMiner generated a total of 1196 MeSH-terms, 243 words, and 11 publication types. Only MeSH-terms, words, and publication types that were labelled in more than 20 articles were selected to be single search terms, resulting in a total of 133 single search terms. There were 102 single search terms yielding Se > = 25% and Sp > 75%.

4.1 Single search terms

The performance measures of all 102 single search terms sorted by sensitivity (highest to lowest) were shown in Appendix 2; sorted by specificity (highest to lowest) were shown in Appendix 3; sorted by accuracy (highest to lowest) were shown in Appendix 4; sorted by NNR (lowest to highest) were shown in Appendix 5.

The single search term with the highest Se was *Adult[MeSH Terms]*, reaching Se of 88.68% with Sp, Ac, and NNR of 92.59%, 92.48%, and 4.14, respectively. The MeSH term *Double-Blind Method[MeSH]* produced the best Sp, Ac, and NNR, with Sp and Ac > 98% and an NNR of 1.39.

4.2 Two-term search combinations

102 single search terms were combined with each other using OR-operator to create two-term search combinations. This resulted in 5151 two-term search combinations. Only 37 two-term search combinations yielded Sp, Se and Ac >= 90%.

The performance measures of 37 two-term search combinations sorted by sensitivity (highest to lowest) were shown in Appendix 6; sorted by specificity (highest to lowest) were shown in Appendix 7; sorted by accuracy (highest to lowest) were shown in Appendix 8; sorted by NNR (lowest to highest) were shown in Appendix 9.

The two-term search combination with the highest Se was *Adult[MeSH Terms] OR TRIAL**, reaching Se of 98.11% with Sp, Ac, and NNR of 90.05%, 90.26%, and 4.81, respectively. The MeSH term *TRIAL* OR Young Adult[MeSH Terms]* produced the best Sp, Ac, and NNR, with Sp and Ac > 93% and an NNR of 3.64.

4.3 Three/four-term search combinations

Of 37 two-term search combinations, only 32 were used for developing three/four-term search combinations due to word duplications (e.g., the term, *Adult[MeSH Terms] OR BLIND** and *Adult[MeSH Terms] OR BLIND*[Title/Abstract]* yielded the same results). These 32 two-term search combinations were combined using OR-operator, resulting in 461 three/four-term search combinations

The performance measures of all 461 three or four search terms sorted by sensitivity (highest to lowest) were shown in Appendix 10; sorted by specificity (highest to lowest) were shown in Appendix 11; sorted by accuracy (highest to lowest) were shown in Appendix 12; sorted by NNR (lowest to highest) were shown in Appendix 13.

The three/four-term search combinations with the highest Se were *TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR ASSIGN**, reaching Se of 100.00% with

Sp, Ac, and NNR of 85.73%, 86.10%, and 6.36, respectively, and *TRIAL* OR YEAR* OR Adult[MeSH Terms] OR ASSIGN**, reaching Se of 100% with Sp, Ac, and NNR of 85.67%, 86.05%, and 6.38, respectively.

The '*TRIAL* OR INTERVENT*[Title/Abstract] OR TRIAL*[Title/Abstract]*' produced the best Sp, Ac, and NNR, with Se, Sp, Ac, and NNR of 90.57%, 93.24%, 93.17%, and 3.80, respectively.

4.4 The top search terms with best performance measures

The search combinations with the highest Se (100%) were *TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR ASSIGN** and *TRIAL* OR YEAR* OR Adult[MeSH Terms] OR ASSIGN**, with the difference in Sp of 85.73% and 85.67%, respectively.

Double-Blind Method[MeSH Terms] yielded the highest Sp is 99.42 %. This search filter also provided the highest Ac and lowest NNR with 98.29 % and 1.39. It is worth noting that the top five search filters that were optimised for Ac and NNR were similar in terms of their performance measures.

The top search terms or search combinations with highest Se, SP, Ac and lowest NNR are shown in Appendix 14, 15, 16, and 17, respectively. Each table displays top five search combinations in each category, except Appendix 14 that displays more than top five as the third best through the thirty-ninth best search combinations yielded the same Se of 99.06%.

4.5 Internal Validation

Appendix 14, 15, 16, and 17 also displays the outcomes of the internal validation. The performance measures of the top five search filters in the development set did not significantly differ (between <1-5%) from the validation set. The previously mentioned

search terms, *TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR ASSIGN** and *Double-Blind Method[MeSH Terms]*, produced values of (Se 99.05%, Sp 85.70%) and (Se 55.66%, Sp 99.42%), respectively in the validation set.

4.6 External Validation

Appendix 18 shows the performance measures of developed search filters in this study compared with PubMed's search filter for clinical studies, “clinical study[filter]”. Three herb names, Aloe vera, Ashwagandha, and Ginger, were used for the search comparison (external validation). Each herb’s name combined with the search filters were put into PubMed to search for clinical studies about herbs. The performance measures were the number of relevant articles and percent of relevant articles (the number of relevant articles divided by the number of total articles retrieved from PubMed). In general, the developed search filters yielded more relevant articles than the PubMed search filter. They also provided more articles overall (both relevant and irrelevant articles), resulting in the decrease of percent of relevant articles.

4.7 Testing search filters with Thai herb search

According to Appendix 19, the use of search filters (both the developed search filters and PubMed's search filter, "clinical study"[filter]) resulted in fewer total search results compared to not using any search filters, which is the intended purpose of search filters. Overall, the five developed search filters yielded higher total search results (Total) and numbers of relevant articles (R), but lower %Rs, compared to PubMed's search filter ("clinical study"[filter]). However, there are several exceptions to this trend. Firstly, when searching for clinical studies on Andrographis paniculata, search filter No. 5 showed a higher %R compared to PubMed's search filter (70% and 50% respectively). Secondly, when searching for clinical studies on Zingiber cassumunar Roxb., all five developed search filters provided higher %Rs. Finally, the search results for "Solanum indicum L",

"Derris scandens (Roxb.) Benth", and "Clinacanthus nutans (Burm.f.) Lindau" were not found when using any search filters.

According to Appendix 20, all five developed search filters, when applied to search for clinical studies on "Andrographis paniculata" and "Zingiber cassumunar Roxb.", yielded higher F-measures compared to PubMed's search filter. When searching for clinical studies on “Thunbergia laurifolia”, only search filters No. 1 and No. 2 yielded higher F-measures compared to PubMed's search filter. However, when searching for clinical studies on "Solanum indicum L", "Derris scandens (Roxb.) Benth", and "Clinacanthus nutans (Burm.f.) Lindau", the F-measure was equal to 0 because no search results were found using these filters for these herbs. It is worth noting that the researchers did not calculate F-measures for “Curcuma longa L.” and “Capsicum spp.” due to the high number of search results (more than 2000 results), which would have required a considerable amount of time.

4.8 Improving search filters

Appendix 21 shows the performance measures of top-five three/four-term search combinations from development set before and after adding search terms related to herbs. The findings of the study indicate a decrease in the Se of the developed search filters when herb terms were added to the top-five three/four-term search combinations, with values ranging from 92.45% to 100% before, and 57.55% to 63.21% after. On the other hand, the Sp showed an increase from 85.73% to 92.54% before, to 95.60% to 98.49% after improving the search filters. Similarly, the Ac experienced an increase from 86.10% to 92.53% before, to 94.44% to 97.48% after the improvements. Additionally, the NNR decreased from 4.03 to 6.36 before, to 1.95 to 3.81 after the enhancements.

CHAPTER 5

DISCUSSIONS

5.1 Discussions

Previous studies have provided recommendations on search strategies for herb-related research (Bardia et al., 2006; Saxton & Owen, 2005). For example, Bardia et al. compared various search strategies available on Websites such as Ovid and PubMed for identifying complementary and alternative medicine (CAM) clinical trials in oncology (Bardia et al., 2006). However, this study is the first to develop search filters for retrieving clinical studies of herbs from PubMed. Existing related search filter studies are, for instance, those aiming to identify randomised controlled trials (J. Glanville et al., 2019; J. M. Glanville et al., 2006) and controlled non-randomised studies (Waffenschmidt et al., 2020). As remarked by Jenkins, the procedures employed to create search filters in such studies encompass four key stages: identifying a gold standard, selecting search terms, evaluating search filters, and validating search filters (Jenkins, 2004).

The methods of developing search filters in this study were based on the four key stages outlined by Jenkins (Jenkins, 2004) and adapted from van Hoorn et al. (van Hoorn et al., 2016) with certain modifications. Despite the study not being directly related to herbs, the methods by van Hoorn et al. were selected because it produced effective search results and provided more detailed methodology for creating and selecting search terms compared to other methods. Even though the methods from these studies are similar in terms of consisting of four key stages (Jenkins, 2004), there are differences in the specific details of each stage depending on the context of the study.

For example, when establishing a gold standard, some studies selected a fixed number of articles regardless of publication year (J. M. Glanville et al., 2006), while others included all articles published during certain years (J. Glanville et al., 2019; van Hoorn et al., 2016; Waffenschmidt et al., 2020). Another difference between studies is the use of

tools to select search terms, with some relying on Wordstat (J. Glanville et al., 2019; J. M. Glanville et al., 2006) or PubReMiner (van Hoorn et al., 2016). This study included 8169 articles published during a two-year period which were more than previous studies (J. Glanville et al., 2019; J. M. Glanville et al., 2006; Waffenschmidt et al., 2020) and utilised PubReMiner, a free and online tool, to generate single search terms. All single search terms were then evaluated for retrieval performance; those met criteria were then combined to form two-term search combinations. The same process was applied for two-term search combinations to develop three- or four-search terms. The best search filters were selected based on each performance measure.

Another distinction between the studies is the performance measures used to assess the efficacy of search filters. Some studies, such as those by Glanville et al. in 2006 and 2019 (J. Glanville et al., 2019; J. M. Glanville et al., 2006), utilised only the measures of Se and precision. On the other hand, other studies, such as that by Waffenschmidt et al. in 2020 and van Hoorn et al. in 2016 (van Hoorn et al., 2016; Wachtel-Galor & Benzie, 2011), employed a more comprehensive set of measures, including Se, Sp precision, and Ac. It should be noted that there are variations in the calculation and definition of each performance measure. This study adopted four performance measures, namely Se, Sp, Ac, and NNR, based on Lee et al.'s recommendation that an optimal search filter for identifying healthcare information should demonstrate high Se, Sp, Ac, and a reasonably low NNR (Lee et al., 2012). The goals were to ensure that all relevant articles would be identified (Se), a low number of non-relevant articles would be retrieved (Sp), most of the identified articles would be relevant (Ac), and the NNR would be reduced.

For the steps of evaluating a search filter, Glanville et al. divided records into 9 test sets and 2 validation sets to evaluate the search filter (J. Glanville et al., 2019). Waffenschmidt et al. (Waffenschmidt et al., 2020)and van Hoorn et al. (van Hoorn et al., 2016) randomly divided their articles into a development set and a validation set (60%-

40% and 50%-50%, respectively). However, these search filters were not external validated. In contrast, Glanville et al. conducted both internal and external validation of their search filters (J. M. Glanville et al., 2006). This study split the articles into a development set and a validation set, each comprising 50% of the total articles. Additionally, the performance of the search filter was assessed through external validation.

As previously mentioned, the methods of developing search filters in this study were mainly adapted from van Hoorn et al. (van Hoorn et al., 2016). However, there were two main modifications in selecting search terms. First, all single search terms generated from a gold standard were evaluated for retrieval performance in van Hoorn's study. Though, it is impossible to evaluate all single terms in this study due to the limitation of hand searching. Only terms generated more than 20 times for each type (i.e., words, MeSH terms, and publication types) were selected and assessed for performance. Second, to develop three or four-term search combinations, van Hoorn suggested using two-term search combinations that have Se > = 50 %, a Sp > = 75 % and an Ac > = 75 % to generate into three or four-term search combinations. However, there were too many two-term search combinations that met the criteria (2586 search terms). Therefore, the study adjusted the criteria to include only those terms that have Se > = 90 %, a Sp > =90 % and an Ac > = 90 % (32 search terms) for developing further three or four-term search combinations (461 search terms). Hence, the performance of three or four-term search combinations consisting of the excluded two-term search combinations are unknown.

This study successfully developed search filters for clinical studies about herbs with the highest Se, Sp, Ac, and lowest NNR. The search filter with the highest Se is *TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR ASSIGN**. The search filter with the highest Sp, highest Ac, and lowest NNR is the same search filter which is *Double-Blind Method[MeSH Terms]*. To select an appropriate search filter, users may depend on several factors, including their objectives, resources, research questions, and the types

of answers they seek to obtain. For example, *TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR ASSIGN** is appropriate for researchers who intend to conduct meta-analysis or systematic reviews regarding clinical studies about herbs because it has more than 90% of Se, which is considered acceptable according to the study of Beynon et al. (Beynon et al., 2013). This search filter may be useful for uncommon herbs that have been less studied. *Double-Blind Method[MeSH Terms]* is suitable for clinicians who have limited time and quick and accurate answers to specific questions. This is because the high Sp of this search filter ensures that the results retrieved are highly relevant to the question being asked, reducing the number of irrelevant articles and saving time for the clinician. This search filter can be appropriate for herbs that have been commonly studied, such as garlic and curcumin. This search filter is also suitable for researchers who prioritise the retrieval of accurate articles in a limited timeframe as the high Ac of the filter enhances the Ac of the search results, while the low NNR reduces the time and effort required by researchers to locate the relevant information.

Even though the developed search filters were developed from clinical studies about herbs, the search terms that yielded the best performance measures lack of words related to herbs (e.g., HERB*, PLANT*, Plant Extracts[MeSH Terms]). This may be because most articles in five journals that were selected for developing the search filters were clinical studies about herbs. There were not many clinical studies that are not related to herbs. Therefore, terms such as '*TRIAL**' and '*Adult[MeSH Terms]*' were enough to retrieve relevant articles, despite not using terms related to herb. On the surface these developed search filters seem like search filters for retrieving a clinical study in general and not specific to herbs. Therefore, the developed search filters were then compared with PubMed's clinical study search filter (*clinical study[Filter]*) by adding herb names to the filters to see whether our developed search filters would provide better search results for clinical study about herb. This study found that the developed search filters provided more inclusive results in that they could retrieve more relevant articles, including relevant

articles that PubMed's search filter failed to discover. However, it is noteworthy that the clinical search filter offered by PubMed showed a higher percentage of relevant results. Thus, PubMed's clinical search filter may be more appropriate for people who have less time and do not need numerous articles. Yet, the developed search filters are suitable for researchers who intend to discover more relevant articles.

When utilizing the developed search filters to find clinical studies on Thai herbs, the study found that all five filters yielded a higher value of R compared to using PubMed's search filter ("clinical study"[filter]). This is advantageous for researchers seeking to gather as many relevant articles as possible, as filters with a higher value of R increase the number of pertinent academic papers. Thus, the developed search filters are particularly beneficial for researchers conducting systematic reviews who wish to comprehensively explore clinical studies on herbs without overlooking any relevant materials. However, most developed search filters also resulted in a higher Total and a lower %R. Consequently, researchers using these filters would need to navigate through a larger number of articles. Consequently, PubMed's search filter may be more suitable for users with limited time, as they may not have the resources to thoroughly examine extensive documents.

When considering the F-measure value, it is difficult to conclude whether the five developed search filters or PubMed's search filter are more effective, as the F-measure varies. This depends on the type of herbal medicine being searched. For instance, herbal medicines with high TP and FP values tend to have a lower F-measure, such as "Phyllanthus emblica" and "Cassia acutifolia Del." while herbal medicines with high TP and low FP values tend to have a higher F-measure, such as "Andrographis paniculata" and "Zingiber cassumunar Roxb." This study proposes that extending the search period beyond 5 years may provide a clearer trend in the F-measure.

Through the analysis of the search results, it was discovered that the factor influencing the low F-measure is the FP value. Enhancing the search filters to increase the F-measure can be achieved by reducing the FP value. This can be accomplished by examining the academic papers in the FP group to identify their predominant type or specific characteristics. For example, if it is determined that the FP group primarily consists of experimental studies conducted on rats, the search filters can be enhanced by adding the term "NOT rat" to the search term. This approach would help decrease the number of articles in the FP group and enhance the Precision and F-measure values.

When utilizing search filters for "Solanum indicum L", "Derris scandens (Roxb.) Benth", and "Clinacanthus nutans (Burm.f.) Lindau" no results were found. This may be attributed to the fact that these herbal medicines are not widely recognized at the international level and have received limited research attention. This observation is supported by the low Total values obtained even when conducting searches without using any search filters, which yielded only 1, 3, and 13 articles respectively. Additionally, none of these articles were clinical studies. Therefore, in cases where using search filters on any herbs yields no results, it is advisable to attempt a search without employing any search filters instead.

Furthermore, this study improved the lack of words related to herbs in search filters by adding search terms related to herbs from single search terms that had a Se > = 25% and a Sp > = 75% to make search filters become more specific for retrieving clinical studies about herbs. The study found that after adding the search terms, the search filters' Sp and Ac increased, while Se and NNR decreased. This means the improved search filters were more specific, which were appropriate for searchers who want to seek information about in certain diseases without having any herbs in mind.

5.2 Implementations

As previously mentioned, when users use the developed search filters for finding clinical studies about herbs, they need to put the search terms in PubMed's search box. The search terms consist of the developed search filter that users desire (e.g., highest Sp, Se) followed by any names of herbs in which they are interested, connected by AND-operator. Because a herb can be called by its common name, scientific name or its bioactive chemical constituents (Saxton & Owen, 2005), the study recommends using all available terms connected by OR-operator (e.g., "common name OR scientific name OR its bioactive chemical constituents") to increase the search results. Furthermore, users can improve the accuracy of their search by incorporating additional relevant terms, such as a specific disease or symptom, into their search terms when seeking information about a particular herb. For instance, if a clinician have a specific interest about the benefits of garlic for diabetes patients, an appropriate search term will be the search filter with the highest Sp, followed by the terms 'garlic' and 'diabetes' (*Double-Blind Method[MeSH Terms] AND GARLIC AND DIABETES*).

For researchers who aim to find information about the use of herbs in a certain disease without having any specific herbs in mind, they may use the developed search filters combined with the disease name and words related to herb using AND-operator. Words related to herb included *HERB**, *ETHNOPHARMACOLOGIC*, *PLANT*, *Plant Extract[MeSH terms]*, *"Drugs, Chinese Herbal"[Mesh terms]*, and *Phytotherapy[Mesh terms]*. These words were generated from a gold standard through PubReMiner, and they can be combined with one another using the OR-operator. Although they did not meet the criteria to be single search terms, they can be used to help retrieve articles about herbs in case that the researchers want to find out what herbs are used for the disease in which they are interested. For example, if a user wants to find out about herbs used for dementia treatment, he may use the following example search terms: *TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR ASSIGN* AND dementia AND (HERB**

OR ETHNOPHARMACOLOGIC OR PLANT OR Plant Extract[MeSH terms] OR "Drugs, Chinese Herbal"[Mesh terms] OR Phytotherapy[Mesh terms].

5.3 Benefits and impacts

This study has successfully developed effective search filters for retrieving clinical studies related to herbs and finding relevant information on herbal treatments. The developed search filters are useful for healthcare professionals such as physicians, pharmacists, traditional medical practitioners, and researchers seeking information on herbs. The study provided different types of search filters so that healthcare professionals and researchers can select depending research objectives and the desired types of answers. The search filters developed in this study have been shown to be effective, yielding more relevant clinical studies on herbs compared to using PubMed's clinical study search option, making them a credible resource for healthcare professionals and researchers.

In addition to assisting readers in retrieving relevant articles more effectively, the developed search filters can also be beneficial for authors who want to increase the discoverability of their publications. For instance, including high-performing search terms like *TRIAL*, *YEAR*, and *ASSIGN* in the title or abstract of their publications can increase the chances of them being found by healthcare professionals and researchers searching for information about herbs and clinical studies.

5.4 Limitations

This study has three notable limitations. Firstly, articles used to develop search filters were included from only ten journals. If more numbers and types of journals were used, developed search filters would consist of more specific search terms related to herbs and provide better results. Secondly, this study manually evaluated search terms using only excel due to limited resources. Future studies may use other available software

(e.g., SPSS) to assist in evaluating search terms. Lastly, external validation was performed only on three commonly used herbs. The results may differ if fewer common herbs were used for external validation.

5.5 Conclusions and further works

The present study appears to be the first study to develop search filters for clinical studies of herbs successfully. The search filters were developed based on four performance measures. The study reported the best search filters for each performance measure from which searchers can choose depending on their purposes. Searchers can select search filters to locate clinical studies about herbs that they are interested in by using our developed search filters combined with herb names in PubMed's search box. For further development, the study suggests including more journals in the developing search terms process to generate more inclusive search terms. The study also recommends using tools or relevant technology such as machine learning when developing and evaluating search terms since hand searching limits the ability to accomplish so with myriad search terms. Finally, if time and resources are not limited, all search terms should be evaluated to ensure that no potentially effective search terms are overlooked and excluded in the final search filters.

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APPENDIX

Appendix 1

Articles identified as 'clinical study of herbs' (n=211) during the handed-search of the ten journals between Jan 1, 2019 and Dec 31, 2020

Title	PMID
Efficacy and safety of Lianhuaqingwen capsules, a repurposed Chinese herb, in patients with coronavirus disease 2019: A multicenter, prospective, randomized controlled trial	33867046
Efficacy and safety of curcumin in combination with paclitaxel in patients with advanced, metastatic breast cancer: A comparative, randomized, double-blind, placebo-controlled clinical trial	32335356
Protective effects of propolis on hepatic steatosis and fibrosis among patients with nonalcoholic fatty liver disease (NAFLD) evaluated by real-time two-dimensional shear wave elastography: A randomized clinical trial	33166032
The effect of aromatherapy with rose and lavender on anxiety, surgical site pain, and extubation time after open-heart surgery: A double-center randomized controlled trial	32267031
Effect of Traditional Chinese Medicine plus narrow-band medium-wave ultraviolet B radiation on moderate-to-severe psoriasis vulgaris in a case series	32186119
A randomized, triple-blind, placebo-controlled clinical trial, evaluating the sesamin supplement effects on proteolytic enzymes, inflammatory markers, and clinical indices in women with rheumatoid arthritis	31309643
Effect of turmeric on glycemic status, lipid profile, hs-CRP, and total antioxidant capacity in hyperlipidemic type 2 diabetes mellitus patients	30859660
Effect of the fixed combination of valerian, lemon balm, passionflower, and butterbur extracts (Ze 185) on the prescription pattern of benzodiazepines in hospitalized psychiatric patients-A retrospective case-control investigation	31985131

Title	PMID
Comparative efficacy of honey 12.5% and chlorhexidine 0.2% mouthwashes on the oropharyngeal bacterial colonization in mechanically-ventilated patients: a randomized controlled trial	32506858
The clinical effects of purslane (Portulaca oleracea) seeds on metabolic profiles in patients with nonalcoholic fatty liver disease: A randomized controlled clinical trial	30895694
Efficacy of oral administration of licorice as an adjunct therapy on improving the symptoms of patients with Parkinson's disease, A randomized double blinded clinical trial	31574343
Quality of Life, Mental Health, Personality and Patterns of Use in Self-Medicated Cannabis Users with Chronic Diseases: A 12-Month Longitudinal Study	32083789
Protective effect of supplementation with Ginseng, Lilii Bulbus and Poria against PM(2) (.5) in air pollution-induced cardiopulmonary damage among adults	32893384
Effect and safety of Chinese herbal medicine granules in patients with severe coronavirus disease 2019 in Wuhan, China: a retrospective, single-center study with propensity score matching	33637412
The Impacts of Fish Oil and/or Probiotic Intervention on Low-Grade Inflammation, IGFBP-1 and MMP-8 in Pregnancy: A Randomized, Placebo-Controlled, Double-Blind Clinical Trial	33375174
Bacopa monnieri as augmentation therapy in the treatment of anhedonia, preclinical and clinical evaluation	32236999
Efficacy of cinnamon patch treatment for alleviating symptoms of overactive bladder: A double-blind, randomized, placebo-controlled trial	33091856
Jiawei Xiaoyao capsule treatment for mild to moderate major depression with anxiety symptoms: a randomized, double-blind, double-dummy, controlled, multicenter, parallel-treatment trial	32186013

Title	PMID
Addition of Chinese herbal remedy, Tongguan Capsules, to the standard treatment in patients with myocardial infarction improve the ventricular reperfusion and remodeling: Proteomic analysis of possible signaling pathways	32278029
The effect of a hydrogel made by Nigella sativa L. on acne vulgaris: A randomized double-blind clinical trial	32548864
Changes of body composition and circulating neopterin, omentin-1, and chemerin in response to thylakoid-rich spinach extract with a hypocaloric diet in obese women with polycystic ovary syndrome: A randomized controlled trial	33368745
The effect of concentrated pomegranate juice consumption on risk factors of cardiovascular diseases in women with polycystic ovary syndrome: A randomized controlled trial	32767710
Effects of French maritime pine bark extract (Oligopin®) supplementation on bone remodeling markers in postmenopausal osteopenic women: A randomized clinical trial	30907034
Supplementation with Cynanchum wilfordii radix extract for 8 weeks lowers serum total cholesterol: A controlled, randomized, double-blind clinical trial	32243009
Self-reported prevalence and severity of opioid and kratom (Mitragyna speciosa korth.) side effects	31014959
"Efficacy and safety of Liangxue Jiedu decoction for the treatment of progressive psoriasis vulgaris: a multicenter, randomized, controlled study"	32242395
Clinical observation of Qushi Xiezhuo formula in reducing monosodium urate crystal deposition in patients with axial spondyloarthritis	32186123
Effects of Palmaria palmata on lipid metabolism and glycemic control in participants with hypercholesterolemia in a randomized double-blind placebo-controlled trial	32242987
Topical therapy with rhubarb navel plasters in patients with chronic constipation: Results from a prospective randomized multicenter study	32693116

Title	PMID
Oligopin® Supplementation Mitigates Oxidative Stress in Postmenopausal Women with Osteopenia: A Randomized, Double-blind, Placebo-Controlled Trial	33250314
Efficacy and safety of Abelmoschus manihot for IgA nephropathy: A multicenter randomized clinical trial	32535481
The effects of grape seed extract (Vitis vinifera) supplement on inflammatory markers, neuropeptide Y, anthropometric measures, and appetite in obese or overweight individuals: A randomized clinical trial	31713941
The effects of wheat germ supplementation on metabolic profile in patients with type 2 diabetes mellitus: A randomized, double-blind, placebo-controlled trial	31828863
The effect of cumin supplementation on metabolic profiles in patients with metabolic syndrome: A randomized, triple blind, placebo-controlled clinical trial	30762267
The effect of Cornus mas fruit extract consumption on lipid profile, glycemic indices, and leptin in postmenopausal women- A randomized clinical trial	31418933
Comparison of intramuscular and intravenous pharmacokinetics of ginsenosides in humans after dosing XueShuanTong, a lyophilized extract of Panax notoginseng roots	32035876
Effect of herb-partitioned moxibustion on pain and quality of life in women with endometriosis: a protocol for a randomized clinical trial	32242399
Effect of shenyan xiaobai granule on nephrin and podocin of adriamycin-induced renal injury: A randomised controlled trial	31394178
Efficacy of Huoxiang Zhengqi dropping pills and Lianhua Qingwen granules in treatment of COVID-19: A randomized controlled trial	32781283
Effect of Jiawei Shenfu decoction on tumor necrosis factor-alpha and nuclear factor-kappa B in patients who have chronic heart failure with syndromes of deficiency of heart Yang	32186014

Title	PMID
Association between early treatment with Qingfei Paidu decoction and favorable clinical outcomes in patients with COVID-19: A retrospective multicenter cohort study	33181320
Effects of Chinese and Western Medicine on Patients with Dengue Fever	32138530
The effect of saffron supplement on clinical outcomes and metabolic profiles in patients with active rheumatoid arthritis: A randomized, double-blind, placebo-controlled clinical trial	32048365
Regulation of faecal biomarkers in inflammatory bowel disease patients treated with oral mastiha (Pistacia lentiscus) supplement: A double-blind and placebo-controlled randomised trial	30450689
Effects of quercetin supplementation on inflammatory factors and quality of life in post-myocardial infarction patients: A double blind, placebo-controlled, randomized clinical trial	33216421
Evaluation of the effect of Silybum marianum extract on menopausal symptoms: A randomized, double-blind placebo-controlled trial	32762030
Effect of an aqueous extract of Terminalia chebula on endothelial dysfunction, systemic inflammation, and lipid profile in type 2 diabetes mellitus: A randomized double-blind, placebo-controlled clinical study	32618037
Efficacy of Anise (Pimpinella anisum L.) oil for migraine headache: A pilot randomized placebo-controlled clinical trial	30853645
Pharmacokinetics and safety evaluation in healthy Chinese volunteers of alkaloids from leaf of Alstonia scholaris: A multiple doses phase I clinical trial	31055046
Evaluation of the effect of a toothpaste containing Pudilan extract on inhibiting plaques and reducing chronic gingivitis: A randomized, double-blinded, parallel controlled clinical trial	30980892
The beneficial health effects of Nigella sativa on Helicobacter pylori eradication, dyspepsia symptoms, and quality of life in infected patients: A pilot study	31916648

Title	PMID
Valerian extract alters functional brain connectivity: A randomized double-blind placebo-controlled trial	30632220
Effect of Cichorium intybus seeds supplementation on the markers of glycemic control, oxidative stress, inflammation, and lipid profile in type 2 diabetes mellitus: A randomized, double-blind placebo study	32026537
Effects of soy isoflavones on serum systemic and vascular inflammation markers and oxidative stress in peritoneal dialysis patients: A randomized controlled trial	32419281
The effects of black seed supplementation on cardiovascular risk factors in patients with nonalcoholic fatty liver disease: A randomized, double-blind, placebo-controlled clinical trial	31293021
The effect of synbiotic supplementation on anthropometric indices, appetite, and constipation in people with hypothyroidism: A randomized, double-blind, placebo-controlled trial	32363616
A comparison between the effects of flaxseed oil and fish oil supplementation on cardiovascular health in type 2 diabetic patients with coronary heart disease: A randomized, double-blinded, placebo-controlled trial	31190359
Plasma metabolomics of depressed patients and treatment with Xiaoyaosan based on mass spectrometry technique	31494201
Effectiveness and safety of Chinese herbal medicines for hepatitis B virus-related acute-on-chronic liver failure: study protocol for a multicenter randomized controlled trial	33258358
Clinical effectiveness and safety of salvia miltiorrhiza depside salt combined with aspirin in patients with stable angina pectoris: A multicenter, pragmatic, randomized controlled trial	33360345
Efficacy of Jackfruit365™ Green Jackfruit Flour Fortified Diet on Pegfilgrastim to Prevent Chemotherapy-Induced Leukopenia, Irrespective of Tumor Type or Drugs Used-A Retrospective Study	32024271

Title	PMID
Topical silymarin administration for prevention of acute radiodermatitis in breast cancer patients: A randomized, double-blind, placebo-controlled clinical trial	30479044
Risk of diabetes in stroke patients who used Bu Yang Huan Wu Tang: A nationwide propensity-score matched study	33086171
The effect of saffron supplementation on some inflammatory and oxidative markers, leptin, adiponectin, and body composition in patients with nonalcoholic fatty liver disease: A double-blind randomized clinical trial	32798261
A Computational Toxicology Approach to Screen the Hepatotoxic Ingredients in Traditional Chinese Medicines: Polygonum multiflorum Thunb as a Case Study	31591318
No Clinically Relevant Interactions of St. John's Wort Extract Ze 117 Low in Hyperforin With Cytochrome P450 Enzymes and P-glycoprotein	30739325
Influence of curcumin on glycemic profile, inflammatory markers, and oxidative stress in HIV-infected individuals: A randomized controlled trial	32301204
Evaluation of sedative effects of an intranasal dosage form containing saffron, lettuce seeds and sweet violet in primary chronic insomnia: A randomized, double-dummy, double-blind placebo controlled clinical trial	32736046
Beneficial effects of nano-curcumin supplement on depression and anxiety in diabetic patients with peripheral neuropathy: A randomized, double-blind, placebo-controlled clinical trial	31788880
Plasma free amino acid profile in quiescent Inflammatory Bowel Disease patients orally administered with Mastiha (Pistacia lentiscus); a randomised clinical trial	30668352
Effects of crocin and saffron aqueous extract on gene expression of SIRT1, AMPK, LOX1, NF-**K**B, and MCP-1 in patients with coronary artery disease: A randomized placebo-controlled clinical trial	31797473

Title	PMID
The effect of Seidlitzia rosmarinus (eshnan) on the prevention of recurrent cystitis in women of reproductive age: A randomized, controlled, clinical trial	31680378
Ascophyllum nodosum and Fucus vesiculosus on glycemic status and on endothelial damage markers in dysglicemic patients	30714233
Effectiveness of an encecalin standardized extract of Ageratina pichinchensis on the treatment of onychomycosis in patients with diabetes mellitus	32086985
Effect of sour tea supplementation on liver enzymes, lipid profile, blood pressure, and antioxidant status in patients with non-alcoholic fatty liver disease: A double-blind randomized controlled clinical trial	32909326
Hanshiyi Formula, a medicine for Sars-CoV2 infection in China, reduced the proportion of mild and moderate COVID-19 patients turning to severe status: A cohort study	32791263
The effects of lycopene supplement on the spermatogram and seminal oxidative stress in infertile men: A randomized, double-blind, placebo-controlled clinical trial	31468596
Efficacy and safety of Sophora alopecuroides var. alopecuroides seed extract for opioid detoxification: A randomized, double-blind, and placebo-controlled clinical trial	31793731
Efficacy of topical Citrullus colocynthis (bitter apple) extract oil in chemotherapy-induced peripheral neuropathy: A pilot double-blind randomized placebo-controlled clinical trial	31373112
Standardized Nigella sativa seed oil ameliorates hepatic steatosis, aminotransferase and lipid levels in non-alcoholic fatty liver disease: A randomized, double-blind and placebo-controlled clinical trial	30639231
Effect of Curcuma longa on vascular function in native Tamilians with type 2 diabetes mellitus: A randomized, double-blind, parallel arm, placebo-controlled trial	31155769
Randomized double-blind clinical trial examining the Ellagic acid effects on glycemic status, insulin resistance, antioxidant, and inflammatory factors in patients with type 2 diabetes	32909365

Title	PMID
Effectiveness of Eriomin® in managing hyperglycemia and reversal of prediabetes condition: A double-blind, randomized, controlled study	31183921
Liver transplantation and the use of KAVA: Case report	30668342
Effects of adjuvant traditional Chinese medicine therapy on long-term survival in patients with hepatocellular carcinoma	31128485
Grape seed extract supplementation along with a restricted-calorie diet improves cardiovascular risk factors in obese or overweight adult individuals: A randomized, placebo-controlled trial	33044768
A randomized controlled double blinded trial to evaluate efficacy of oral administration of black strap molasses (sugarcane extract) in comparison with polyethylene glycol on pediatric functional constipation	30946967
Evaluation of pharmacokinetics and acute anti-inflammatory potential of two oral cannabidiol preparations in healthy adults	32147925
Traditional Chinese Medicine Formulation Therapy in the Treatment of Coronavirus Disease 2019 (COVID-19)	33148005
Medication with caution: Analysis of adverse reactions caused by a combination of Chinese medicine and warfarin sodium tablets	32109544
Curcuma longa L. ameliorates asthma control in children and adolescents: A randomized, double-blind, controlled trial	30991137
Is it safe to take Radix Salvia Miltiorrhiza - Radix Pueraria Lobate product with warfarin and aspirin? A pilot study in healthy human subjects	32736050
The effects of Jilin sika Deer's (Cervus dybowski) tendon liquid supplementation on endurance drop jumps performance, biochemistry profile of free boxing players	31376516

Title	PMID
Comparison of combination therapy with methotrexate and sinomenine or leflunomide for active rheumatoid arthritis: A randomized controlled clinical trial	30851515
Effect of Nigella sativa oil supplement on risk factors for cardiovascular diseases in patients with type 2 diabetes mellitus	32510754
A case of vitiligo cured with cucumber and sulfur	30746796
Integrative Chinese herbal medicine therapy reduced the risk of type 2 diabetes mellitus in patients with polycystic ovary syndrome: A nationwide matched cohort study	31325604
"Efficacy and safety of the Qiguiyin formula in severe pneumonia: study protocol for a randomized, double-blind, placebo-controlled clinical trial"	32242398
Achillea millefolium is beneficial as an add-on therapy in patients with multiple sclerosis: A randomized placebo-controlled clinical trial	30599916
"Effectiveness of Jinying capsule on pelvic inflammatory disease in patients with symptom pattern of damp and heat accumulation: a double-blinded, multicenter, randomized, placebo-controlled clinical trial"	32506857
Effect of Zataria multiflora on serum cytokine levels and pulmonary function tests in sulfur mustard-induced lung disorders: A randomized double-blind clinical trial	31707049
Integrated therapy decreases the mortality of patients with polymyositis and dermatomyositis: A Taiwan-wide population-based retrospective study	30818007
Effects of supplementation with curcuminoids on serum adipokines in critically ill patients: a randomized double-blind placebo-controlled trial	32542818
The RUTI trial: A feasibility study exploring Chinese herbal medicine for the treatment of recurrent urinary tract infections	31082512
Double-blind placebo controlled trial of the anxiolytic effects of a standardized Echinacea extract	31876052

Title	PMID
Effect of wu chu yu tang on gastroesophageal reflux disease: Randomized, double-blind, placebo-controlled trial	30668332
Utilization trends in traditional Chinese medicine for acute myocardial infarction	31175928
Effectiveness of nourishing Yin and tonifying Yang sequential therapy in combination with Climen on diminished ovarian reserve: a retrospective study	32227777
Aloysia citriodora Palau (lemon verbena) for insomnia patients: A randomized, double-blind, placebo-controlled clinical trial of efficacy and safety	30450627
Efficacy of black seed (Nigella sativa L.) on kidney stone dissolution: A randomized, double-blind, placebo-controlled, clinical trial	30873671
Efficacy of Melissa officinalis L. (lemon balm) extract on glycemic control and cardiovascular risk factors in individuals with type 2 diabetes: A randomized, double-blind, clinical trial	30548118
Effects of curcumin supplementation on blood glucose, insulin resistance and androgens in patients with polycystic ovary syndrome: A randomized double-blind placebo-controlled clinical trial	33137599
The effect of plantain syrup on heavy menstrual bleeding: A randomized triple blind clinical trial	31486196
8 years post-marketing surveillance between Asari Radix and hepatocellular carcinoma: Nationwide population-based evidence against an association	31323301
Traditional Chinese Medicine-facilitated switch from methadone to buprenorphine-naloxone for treatment of heroin dependence: a case report	32186053
Aloe Vera; A new treatment for atrophic vaginitis, A randomized double-blinded controlled trial	33383112
Effect of Bushen Jianpi formula on survival of patients with moderate and advanced hepatocellular carcinoma: a retrospective study	32744036

Title	PMID
Effect of Huatan Jieyu granules in treatment of Parkinson's disease patients with sleep disorder identified as symptom pattern of phlegma-heat-stirring wind	32506861
Efficacy and safety of a herbal drug of Coccinia grandis (Linn.) Voigt in patients with type 2 diabetes mellitus: A double blind randomized placebo controlled clinical trial	33352495
Effects of saffron supplementation on oxidative/antioxidant status and severity of disease in ulcerative colitis patients: A randomized, double-blind, placebo-controlled study	33015869
Randomized, double-blind, placebo-controlled phase II trial of nanocurcumin in prostate cancer patients undergoing radiotherapy	30427093
The effect of l-carnitine supplementation on serum levels of omentin-1, visfatin and SFRP5 and glycemic indices in patients with pemphigus vulgaris: A randomized, double-blind, placebo-controlled clinical trial	31849123
Effects of Xinkeshu combined with levosimendan on perioperative heart failure in oldest-old patients with hip fractures	33000589
Effect of Jinhua Qinggan granules on novel coronavirus pneumonia in patients	32506862
Effect of cimicifuga racemosa on menopausal syndrome caused by LHRH-a in breast cancer	30935866
Effectiveness of Xiaoyin Jiedu granules in the treatment of psoriasis vulgaris in patients with blood-heat symptom patterns in terms of Traditional Chinese Medicine	33000588
The effects of Nigella sativa on quality of life, disease activity index, and some of inflammatory and oxidative stress factors in patients with ulcerative colitis	30666747
Effect of the medication injection site on treatment efficacy in pediatric cerebral palsy: conventional sites vs acupoints	32186122
Biomarkers of oxidative stress and inflammation in people witha physical disability treated with a standardized extract of Nasturtium officinale: A randomized, double-blind, and placebo-controlled trial	32510696

Title	PMID
Delay of cone degeneration in retinitis pigmentosa using a 12-month treatment with Lycium barbarum supplement	30877066
Clinical efficacy and safety of Aidi injection plus paclitaxel-based chemotherapy for advanced non-small cell lung cancer: A meta-analysis of 31 randomized controlled trials following the PRISMA guidelines	30243827
Effect of topical marshmallow (Althaea officinalis) on atopic dermatitis in children: A pilot double-blind active-controlled clinical trial of an in-silico-analyzed phytomedicine	33034099
Effects of Chinese herbal medicine therapy on survival and hepatic outcomes in patients with hepatitis C virus infection in Taiwan	30668320
Antihypertensive Indigenous Lebanese Plants: Ethnopharmacology and a Clinical Trial	31330767
Efficacy and safety of Chinese herbal medicine versus Lopinavir-Ritonavir in adult patients with coronavirus disease 2019: A non-randomized controlled trial	33260064
Influence of a low-dose supplementation of curcumagalactomannoside complex (CurQfen) in knee osteoarthritis: A randomized, open-labeled, active-controlled clinical trial	33210408
The effect of Trigonella foenum-graecum extract on prostate-specific antigen, and prostate function in otherwise healthy men with benign prostate hyperplasia	31828857
Effectiveness of Xinglou Chengqi decoction on constipation in patients with acute ischemic stroke: a randomized controlled trial	32227772
Danhong injection mobilizes endothelial progenitor cells to repair vascular endothelium injury via upregulating the expression of Akt, eNOS and MMP-9	31035054
Efficacy and safety of Yiqi Huoxue Jiedu decoction for the treatment of advanced epithelial ovarian cancer patients: a double-blind randomized controlled clinical trial	32227771
Short communication: Clinical evaluation of pea sprout extract in the treatment of hair loss	31680356

Title	PMID
Artemisia annua and Artemisia afra tea infusions vs. artesunate-amodiaquine (ASAQ) in treating Plasmodium falciparum malaria in a large scale, double blind, randomized clinical trial	30668322
Effectiveness of flesh-moistening paste in psoriasis vulgaris patients with symptom pattern of blood stasis: a randomized and parallel-controlled trial	33258354
Efficacy and safety of indigo naturalis ointment in Treating Atopic Dermatitis: A randomized clinical trial	31838180
Herbal formulation "turmeric extract, black pepper, and ginger" versus Naproxen for chronic knee osteoarthritis: A randomized, double-blind, controlled clinical trial	32180294
Long-term add-on therapy (compassionate use) with oral artesunate in patients with metastatic breast cancer after participating in a phase I study (ARTIC M33/2)	30668363
Aloysia polystachya (Griseb.) Moldenke (Verbenaceae) powdered leaves are effective in treating anxiety symptoms: A phase-2, randomized, placebo-controlled clinical trial	31279865
A pilot, randomized, double-blind, placebo-controlled trial to assess the safety and efficacy of a novel Boswellia serrata extract in the management of osteoarthritis of the knee	30838706
Therapeutic effects of andiroba (Carapa guianensis Aubl) oil, compared to low power laser, on oral mucositis in children underwent chemotherapy: A clinical study	32920135
Effects of Qizhukangxian granules on idiopathic pulmonary fibrosis: a randomized, double blind, placebo-controlled and multicenter clinical pilot trial	32744035
Effect of cream, prepared with Tripterygium wilfordii Hook F and other four medicinals, on joint pain and swelling in patients with rheumatoid arthritis: a double-blinded, randomized, placebo controlled clinical trial	32186028

Title	PMID
A double-blind, randomized, placebo-controlled study to assess the efficacy of Andrographis paniculata standardized extract (ParActin®) on pain reduction in subjects with knee osteoarthritis	30968986
Phytochemical screening and preliminary clinical trials of the aqueous extract mixture of Andrographis paniculata (Burm. f.) Wall. ex Nees and Syzygium polyanthum (Wight.) Walp leaves in metformin treated patients with type 2 diabetes	30668423
Ilex paraguariensis, white mulberry and chromium picolinate in patients with pre-diabetes	31994278
Effects of Chinese herbal medicines on dementia risk in patients with sleep disorders in Taiwan	32822822
The effect of okra (Abelmoschus esculentus) on lipid profiles and glycemic indices in Type 2 diabetic adults: Randomized double blinded trials	32706159
Xinyue Capsule in patients with stable coronary artery disease after percutaneous coronary intervention: a multicenter, randomized, placebo-controlled trial	32446979
Cannabidivarin for HIV-Associated Neuropathic Pain: A Randomized, Blinded, Controlled Clinical Trial	32770831
The effect of curcumin supplementation on clinical outcomes and inflammatory markers in patients with ulcerative colitis	31802559
Treatment of women's sexual dysfunction using Apium graveolens L. Fruit (celery seed): A double-blind, randomized, placebo-controlled clinical trial	32971161
The beneficial effects of sumac (Rhus coriaria L.) supplementation along with restricted calorie diet on anthropometric indices, oxidative stress, and inflammation in overweight or obese women with depression: A randomized clinical trial	32940404
Efficacy of inhaled Lavandula angustifolia Mill. Essential oil on sleep quality, quality of life and metabolic control in patients with diabetes mellitus type II and insomnia	31931160

Title	PMID
A standardized polyphenol mixture extracted from poplar-type propolis for remission of symptoms of uncomplicated upper respiratory tract infection (URTI): A monocentric, randomized, double-blind, placebo-controlled clinical trial	33091857
Effects of Huangban Bianxing One decoction combined with ranibizumab on treating exudative age-related macular degeneration	32186161
Study on the safety of Polygala tenuifolia Willdenow root extract powder (BT-11) in young person aged from 9 to 19 years old	30576772
Protective properties of the aqueous extract of saffron (Crocus sativus L.) in ischemic stroke, randomized clinical trial	30914350
Episiotomy wound healing by Commiphora myrrha (Nees) Engl. and Boswellia carteri Birdw. in primiparous women: A randomized controlled trial	32971163
Network topology and machine learning analyses reveal microstructural white matter changes underlying Chinese medicine Dengzhan Shengmai treatment on patients with vascular cognitive impairment	32244028
Efficacy of Rebixiao Chinese herbal tablets and Chinese formula granules in acute gout arthritis patients: a randomized, multicenter, double-blind, controlled trial	32744034
Effect of curcumin supplementation on disease severity in patients with liver cirrhosis: A randomized controlled trial	32017253
The effects of Elaeagnus angustifolia L. whole fruit on the sex hormone profile in menopausal women: A double-blind, randomized, placebo-controlled study	31513839
The effect of hydroalcoholic Saffron (Crocus sativus L.) extract on fasting plasma glucose, HbA1c, lipid profile, liver, and renal function tests in patients with type 2 diabetes mellitus: A randomized double-blind clinical trial	30942510

Title	PMID
Influence of Traditional Chinese Medicine on Medical Adherence and Outcome in Estrogen Receptor (+) Breast Cancer Patients in Taiwan: A Real-World Population-Based Cohort Study	33126168
The effects of garlic (Allium sativum) supplementation on inflammatory biomarkers, fatigue, and clinical symptoms in patients with active rheumatoid arthritis: A randomized, double-blind, placebo-controlled trial	32478922
Effects of curcumin supplementation on markers of inflammation and oxidative stress among healthy overweight and obese girl adolescents: A randomized placebo-controlled clinical trial	31206225
The effects of curcumin intake on wound healing and metabolic status in patients with diabetic foot ulcer: A randomized, double-blind, placebo-controlled trial	33200488
"Efficacy and safety of Xinfeng capsule in the treatment of osteoarthritis: a multicenter, randomized, double-blinded, controlled trial"	32242394
Traditional Chinese medicine is associated with a decreased risk of heart failure in breast cancer patients receiving doxorubicin treatment	30261193
The effect of Xiang-Sha-Liu-Jun-Zi tang (XSLJZT) on irritable bowel syndrome: A randomized, double-blind, placebo-controlled trial	31009707
Lipid Profile, Lipoprotein Subfractions, and Fluidity of Membranes in Children and Adolescents with Depressive Disorder: Effect of Omega-3 Fatty Acids in a Double-Blind Randomized Controlled Study	33050072
The effect of crocin (the main active saffron constituent) on the cognitive functions, craving, and withdrawal syndrome in opioid patients under methadone maintenance treatment	33078480
Effects and safety of herbal medicines among community-dwelling residents during COVID-19 pandemic: A large prospective, randomized controlled trial (RCT)	33419674

Title	PMID
Clinical evaluation of the pharmacological impact of ashwagandha root extract on sleep in healthy volunteers and insomnia patients: A double-blind, randomized, parallel-group, placebo-controlled study	32818573
The effect of resveratrol supplementation on serum levels of asymmetric de-methyl-arginine and paraoxonase 1 activity in patients with type 2 diabetes: A randomized, double-blind controlled trial	32144833
Evaluation of the Adjuvant Efficacy of Natural Herbal Medicine on COVID-19: A Retrospective Matched Case-Control Study	32420751
Effect of a modified Banxia Xiexin decoction plus chemotherapy on stage Ⅲ colon cancer	32186049
Effect of herb-partitioned moxibustion for primary dysmenorrhea: a randomized clinical trial	32186047
Three-arm, placebo-controlled, randomized clinical trial evaluating the metabolic effect of a combined nutraceutical containing a bergamot standardized flavonoid extract in dyslipidemic overweight subjects	31225673
Effects of cumin (Cuminum cyminum L.) essential oil supplementation on metabolic syndrome components: A randomized, triple-blind, placebo-controlled clinical trial	31478290
The effect of black barberry hydroalcoholic extract on immune mediators in patients with active rheumatoid arthritis: A randomized, double-blind, controlled clinical trial	32914483
The Effect of Resveratrol Supplementation on Cardio-Metabolic Risk Factors in Patients with Type 2 Diabetes: A Randomized, Double-Blind Controlled Trial	31475415
Rice flour fermented with Lactobacillus paracasei CBA L74 in the treatment of atopic dermatitis in infants: A randomized, double- blind, placebo- controlled trial	33157233
Long-term efficacy of Chinese medicine Bushen Capsule on cognition and brain activity in patients with amnestic mild cognitive impairment	31220560

Title	PMID
The effect of barberry (Berberis vulgaris) consumption on flow-mediated dilation and inflammatory biomarkers in patients with hypertension: A randomized controlled trial	33350540
Beneficial effects of Codonopsis lanceolata extract on systolic blood pressure levels in prehypertensive adults: A double-blind, randomized controlled trial	31833621
Supplementation with extract of Gynostemma pentaphyllum leaves reduces anxiety in healthy subjects with chronic psychological stress: A randomized, double-blind, placebo-controlled clinical trial	30599899
Preventive effect of purgative manna on neonatal jaundice: A double blind randomized controlled clinical trial	30853647
The efficacy of topical red clover oil on knee osteoarthritis: A pilot prospective randomized triple-blind placebo-controlled clinical trial	32162741
The effects of curcumin supplementation on high-sensitivity C-reactive protein, serum adiponectin, and lipid profile in patients with type 2 diabetes: A randomized, double-blind, placebo-controlled trial	30864188
Hesperidin improves hepatic steatosis, hepatic enzymes, and metabolic and inflammatory parameters in patients with nonalcoholic fatty liver disease: A randomized, placebo-controlled, double-blind clinical trial	31264313
Clinical and metabolic responses to crocin in patients under methadone maintenance treatment: A randomized clinical trial	31359519
Cannabidiol and Abnormal Liver Chemistries in Healthy Adults: Results of a Phase I Clinical Trial	33022751
Impact of curcumin on energy metabolism in HIV infection: A case study	30648299

Title	PMID
The Effectiveness of Herbal Mixture Supplements with and without Clomiphene Citrate in Comparison to Clomiphene Citrate on Serum Antioxidants and Glycemic Biomarkers in Women with Polycystic Ovary Syndrome Willing to be Pregnant: A Randomized Clinical Trial	31163689
Antihypertensive efficacy and safety of a standardized herbal medicinal product of Hibiscus sabdariffa and Olea europaea extracts (NW Roselle): A phase-II, randomized, double-blind, captopril-controlled clinical trial	32725873
Bergamot phytosome improved visceral fat and plasma lipid profiles in overweight and obese class I subject with mild hypercholesterolemia: A randomized placebo controlled trial	33188552
Homeopathic medicine of Melissa officinalis combined or not with Phytolacca decandra in the treatment of possible sleep bruxism in children: A crossover randomized triple-blinded controlled clinical trial	30831467
Effect of cinnamon on migraine attacks and inflammatory markers: A randomized double-blind placebo-controlled trial	32638445
A Randomized Clinical Efficacy Trial of Red Yeast Rice (Monascus pilosus) Against Hyperlipidemia	30871361
Patterns and reasons for kratom (Mitragyna speciosa) use among current and former opioid poly-drug users	31816368
Safety of co-administration of herbal and conventional medicines on liver and kidney function in stroke patients: A single-center retrospective study	33338904

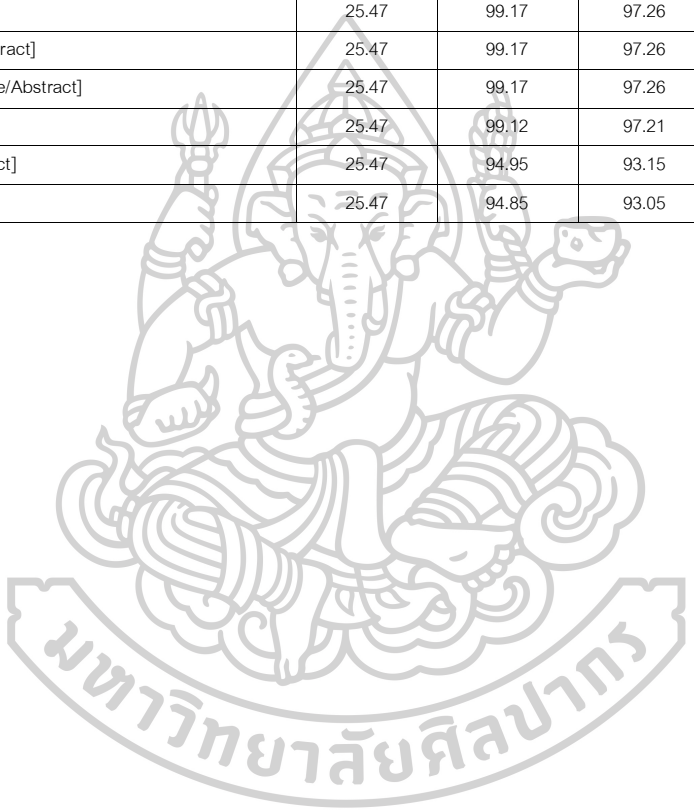
Appendix 2

Single search terms sorted by sensitivity (highest to lowest)

Single search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms]	88.68	92.59	92.48	4.14
FEMALE	86.79	79.04	79.24	10.07
TRIAL*	85.85	95.25	95.01	3.08
Female[MeSH Terms]	85.85	79.17	79.34	10.11
GROUP*	85.85	78.49	78.68	10.41
GROUP*[Title/Abstract]	84.91	82.43	82.50	8.77
CLINIC*[Title/Abstract]	83.96	84.34	84.33	8.00
CONTROLL*	81.13	93.52	93.19	4.00
RANDOM*	80.19	94.60	94.22	3.53
RANDOM*[Title/Abstract]	78.30	95.58	95.13	3.12
CONTROL*[Title/Abstract]	76.42	79.24	79.17	11.20
TRIAL*[Title/Abstract]	74.53	97.03	96.45	2.49
PATIENT*[Title/Abstract]	74.53	87.58	87.25	7.25
PATIENT*	74.53	87.31	86.98	7.39
RANDOMIZED CONTROLLED TRIAL[Publication type]	71.70	98.29	97.60	1.89
ADULT*	70.75	92.11	91.55	5.19
Middle Aged[MeSH Terms]	68.87	94.67	94.00	3.90
MIDDLE	68.87	93.11	92.48	4.75
CONTROLL*[Title/Abstract]	66.98	94.80	94.08	3.92
COMPARE*	61.32	77.48	77.06	14.78
COMPARE*[Title/Abstract]	61.32	77.48	77.06	14.78
PLACEBO*	58.49	99.12	98.07	1.56
PLACEBO*[Title/Abstract]	58.49	99.12	98.07	1.56
BLIND*	56.60	99.17	98.07	1.55
BLIND*[Title/Abstract]	56.60	99.17	98.07	1.55
Double-Blind Method[MeSH Terms]	55.66	99.42	98.29	1.39
AFTER[Title/Abstract]	53.77	76.90	76.30	17.12
AFTER	53.77	76.88	76.28	17.14
DOUBLE[Title/Abstract]	52.83	98.14	96.96	2.32
DOUBLE	52.83	97.99	96.82	2.43
WEEK*[Title/Abstract]	52.83	92.13	91.11	6.59
WEEK*	52.83	92.11	91.09	6.61
RECEIVE*[Title/Abstract]	49.06	96.10	94.88	3.98
RECEIVE*	49.06	95.28	94.08	4.62
BASE*[Title/Abstract]	47.17	76.20	75.45	19.94
Plant Extracts[MeSH Terms]	45.28	75.82	75.03	21.04
BLOOD	43.40	79.14	78.21	19.04
OUTCOME*	41.51	94.80	93.41	5.70
TWO[Title/Abstract]	41.51	82.76	81.69	16.59
TWO	41.51	82.71	81.64	16.64
ASSESS*[Title/Abstract]	41.51	79.72	78.73	19.34

Single search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
ASSESS*	41.51	78.94	77.97	20.05
DISEASE*[Title/Abstract]	41.51	75.37	74.49	23.27
DECREASE*	41.51	75.32	74.44	23.32
DECREASE*[Title/Abstract]	41.51	75.32	74.44	23.32
DAY*[Title/Abstract]	39.62	93.74	92.34	6.93
DAY*	39.62	93.67	92.26	7.00
TOTAL*	39.62	90.00	88.69	10.48
TOTAL*[Title/Abstract]	39.62	90.00	88.69	10.48
HERB*	39.62	84.07	82.91	16.10
MEDICINE*[Title/Abstract]	36.79	80.72	79.58	20.67
IMPROVE*[Title/Abstract]	36.79	79.72	78.60	21.69
IMPROVE*	36.79	79.37	78.26	22.05
BASELINE	35.85	99.02	97.38	2.03
BASELINE[Title/Abstract]	35.85	99.02	97.38	2.03
CHANGE*[Title/Abstract]	35.85	83.46	82.23	18.32
CHANGE*	35.85	83.39	82.15	18.39
Aged[MeSH Terms]	34.91	96.48	94.88	4.78
CHINESE	34.91	77.21	76.11	25.51
EFFICACY	32.08	88.06	86.61	14.97
analysis[MeSH Terms]	32.08	78.34	77.14	26.35
SUPPLE*	31.13	97.03	95.32	4.58
EFFICACY[Title/Abstract]	31.13	88.79	87.29	14.52
EXTRACT*	31.13	76.02	74.86	29.91
SCORE*	30.19	96.91	95.18	4.84
SCORE*[Title/Abstract]	30.19	96.91	95.18	4.84
DIETARY	30.19	94.65	92.97	7.66
AIM*	30.19	76.07	74.88	30.75
AIM*[Title/Abstract]	30.19	76.07	74.88	30.75
INTERVENT*[Title/Abstract]	29.25	97.64	95.86	4.03
INTERVENT*	29.25	97.49	95.72	4.23
SUPPLE*[Title/Abstract]	29.25	97.29	95.52	4.48
END[Title/Abstract]	29.25	95.98	94.25	6.16
END	29.25	95.85	94.12	6.32
ADVERSE	29.25	90.80	89.20	12.81
HERB*[Title/Abstract]	29.25	90.32	88.74	13.42
MEASURE*	29.25	83.69	82.28	21.94
OBSERVE*[Title/Abstract]	29.25	82.26	80.88	23.77
OBSERVE*	29.25	82.21	80.83	23.84
CONDUCT*[Title/Abstract]	28.30	92.81	91.14	10.53
CONDUCT*	28.30	92.11	90.45	11.47
CHINESE[Title/Abstract]	28.30	89.55	87.96	14.87
MEASURE*[Title/Abstract]	28.30	84.12	82.67	22.07
TRADIT*[Title/Abstract]	28.30	81.08	79.71	26.10
Young Adult[MeSH Terms]	27.36	97.29	95.47	4.72
YOUNG	27.36	96.26	94.47	6.14

Single search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
SAFETY[Title/Abstract]	27.36	95.50	93.73	7.17
SAFETY	27.36	93.89	92.17	9.38
SERUM[Title/Abstract]	27.36	89.49	87.88	15.41
SERUM	27.36	89.27	87.66	15.72
BLOOD[Title/Abstract]	27.36	89.04	87.44	16.03
EXTRACT*[Title/Abstract]	27.36	78.89	77.55	29.97
OUTCOME*[Title/Abstract]	26.42	96.76	94.93	5.61
INDEX*[Title/Abstract]	26.42	95.43	93.64	7.50
INDEX*	26.42	95.22	93.44	7.79
FOLLOW*	26.42	86.58	85.02	20.07
ASSIGN*	25.47	99.17	97.26	2.22
ASSIGN*[Title/Abstract]	25.47	99.17	97.26	2.22
PARTICIPANT*[Title/Abstract]	25.47	99.17	97.26	2.22
PARTICIPANT*	25.47	99.12	97.21	2.30
YEAR*[Title/Abstract]	25.47	94.95	93.15	8.44
YEAR*	25.47	94.85	93.05	8.59



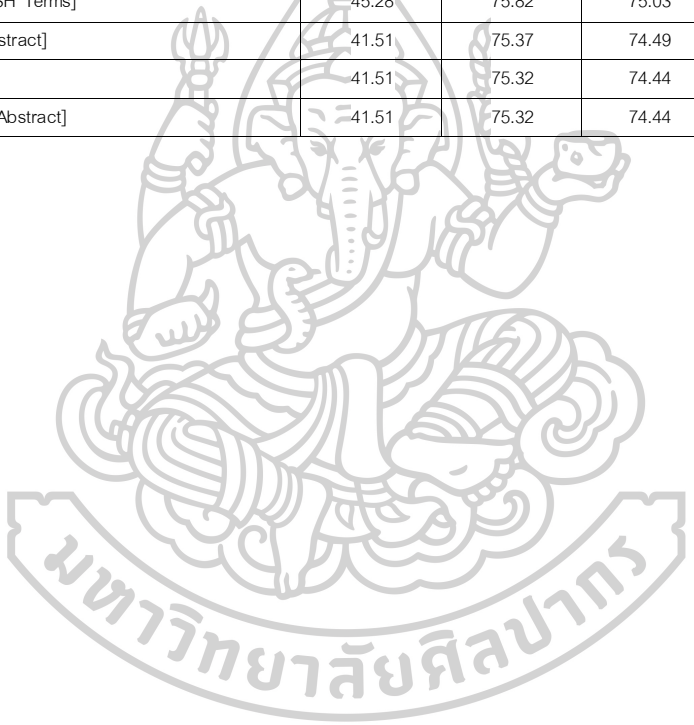
Appendix 3

Single search terms sorted by specificity (highest to lowest)

Single search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Double-Blind Method[MeSH Terms]	55.66	99.42	98.29	1.39
BLIND*	56.60	99.17	98.07	1.55
BLIND*[Title/Abstract]	56.60	99.17	98.07	1.55
ASSIGN*	25.47	99.17	97.26	2.22
ASSIGN*[Title/Abstract]	25.47	99.17	97.26	2.22
PARTICIPANT*[Title/Abstract]	25.47	99.17	97.26	2.22
PLACEBO*	58.49	99.12	98.07	1.56
PLACEBO*[Title/Abstract]	58.49	99.12	98.07	1.56
PARTICIPANT*	25.47	99.12	97.21	2.30
BASELINE	35.85	99.02	97.38	2.03
BASELINE[Title/Abstract]	35.85	99.02	97.38	2.03
RANDOMIZED CONTROLLED TRIAL[Publication type]	71.70	98.29	97.60	1.89
DOUBLE[Title/Abstract]	52.83	98.14	96.96	2.32
DOUBLE	52.83	97.99	96.82	2.43
INTERVENT*[Title/Abstract]	29.25	97.64	95.86	4.03
INTERVENT*	29.25	97.49	95.72	4.23
SUPPLE*[Title/Abstract]	29.25	97.29	95.52	4.48
Young Adult[MeSH Terms]	27.36	97.29	95.47	4.72
TRIAL*[Title/Abstract]	74.53	97.03	96.45	2.49
SUPPLE*	31.13	97.03	95.32	4.58
SCORE*	30.19	96.91	95.18	4.84
SCORE*[Title/Abstract]	30.19	96.91	95.18	4.84
OUTCOME*[Title/Abstract]	26.42	96.76	94.93	5.61
Aged[MeSH Terms]	34.91	96.48	94.88	4.78
YOUNG	27.36	96.26	94.47	6.14
RECEIVE*[Title/Abstract]	49.06	96.10	94.88	3.98
END[Title/Abstract]	29.25	95.98	94.25	6.16
END	29.25	95.85	94.12	6.32
RANDOM*[Title/Abstract]	78.30	95.58	95.13	3.12
SAFETY[Title/Abstract]	27.36	95.50	93.73	7.17
INDEX*[Title/Abstract]	26.42	95.43	93.64	7.50
RECEIVE*	49.06	95.28	94.08	4.62
TRIAL*	85.85	95.25	95.01	3.08
INDEX*	26.42	95.22	93.44	7.79
YEAR*[Title/Abstract]	25.47	94.95	93.15	8.44
YEAR*	25.47	94.85	93.05	8.59
CONTROLL*[Title/Abstract]	66.98	94.80	94.08	3.92
OUTCOME*	41.51	94.80	93.41	5.70
Middle Aged[MeSH Terms]	68.87	94.67	94.00	3.90
DIETARY	30.19	94.65	92.97	7.66
RANDOM*	80.19	94.60	94.22	3.53

Single search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
SAFETY	27.36	93.89	92.17	9.38
DAY*[Title/Abstract]	39.62	93.74	92.34	6.93
DAY*	39.62	93.67	92.26	7.00
CONTROLL*	81.13	93.52	93.19	4.00
MIDDLE	68.87	93.11	92.48	4.75
CONDUCT*[Title/Abstract]	28.30	92.81	91.14	10.53
Adult[MeSH Terms]	88.68	92.59	92.48	4.14
WEEK*[Title/Abstract]	52.83	92.13	91.11	6.59
ADULT*	70.75	92.11	91.55	5.19
WEEK*	52.83	92.11	91.09	6.61
CONDUCT*	28.30	92.11	90.45	11.47
ADVERSE	29.25	90.80	89.20	12.81
HERB*[Title/Abstract]	29.25	90.32	88.74	13.42
TOTAL*	39.62	90.00	88.69	10.48
TOTAL*[Title/Abstract]	39.62	90.00	88.69	10.48
CHINESE[Title/Abstract]	28.30	89.55	87.96	14.87
SERUM[Title/Abstract]	27.36	89.49	87.88	15.41
SERUM	27.36	89.27	87.66	15.72
BLOOD[Title/Abstract]	27.36	89.04	87.44	16.03
EFFICACY[Title/Abstract]	31.13	88.79	87.29	14.52
EFFICACY	32.08	88.06	86.61	14.97
PATIENT*[Title/Abstract]	74.53	87.58	87.25	7.25
PATIENT*	74.53	87.31	86.98	7.39
FOLLOW*	26.42	86.58	85.02	20.07
CLINIC*[Title/Abstract]	83.96	84.34	84.33	8.00
MEASURE*[Title/Abstract]	28.30	84.12	82.67	22.07
HERB*	39.62	84.07	82.91	16.10
MEASURE*	29.25	83.69	82.28	21.94
CHANGE*[Title/Abstract]	35.85	83.46	82.23	18.32
CHANGE*	35.85	83.39	82.15	18.39
TWO[Title/Abstract]	41.51	82.76	81.69	16.59
TWO	41.51	82.71	81.64	16.64
GROUP*[Title/Abstract]	84.91	82.43	82.50	8.77
OBSERVE*[Title/Abstract]	29.25	82.26	80.88	23.77
OBSERVE*	29.25	82.21	80.83	23.84
TRADIT*[Title/Abstract]	28.30	81.08	79.71	26.10
MEDICINE*[Title/Abstract]	36.79	80.72	79.58	20.67
ASSESS*[Title/Abstract]	41.51	79.72	78.73	19.34
IMPROVE*[Title/Abstract]	36.79	79.72	78.60	21.69
IMPROVE*	36.79	79.37	78.26	22.05
CONTROL*[Title/Abstract]	76.42	79.24	79.17	11.20
Female[MeSH Terms]	85.85	79.17	79.34	10.11
BLOOD	43.40	79.14	78.21	19.04
FEMALE	86.79	79.04	79.24	10.07
ASSESS*	41.51	78.94	77.97	20.05

Single search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
EXTRACT*[Title/Abstract]	27.36	78.89	77.55	29.97
GROUP*	85.85	78.49	78.68	10.41
analysis[MeSH Terms]	32.08	78.34	77.14	26.35
COMPARE*	61.32	77.48	77.06	14.78
COMPARE*[Title/Abstract]	61.32	77.48	77.06	14.78
CHINESE	34.91	77.21	76.11	25.51
AFTER[Title/Abstract]	53.77	76.90	76.30	17.12
AFTER	53.77	76.88	76.28	17.14
BASE*[Title/Abstract]	47.17	76.20	75.45	19.94
AIM*	30.19	76.07	74.88	30.75
AIM*[Title/Abstract]	30.19	76.07	74.88	30.75
EXTRACT*	31.13	76.02	74.86	29.91
Plant Extracts[MeSH Terms]	45.28	75.82	75.03	21.04
DISEASE*[Title/Abstract]	41.51	75.37	74.49	23.27
DECREASE*	41.51	75.32	74.44	23.32
DECREASE*[Title/Abstract]	41.51	75.32	74.44	23.32



Appendix 4

Single search terms sorted by accuracy (highest to lowest)

Single search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Double-Blind Method[MeSH Terms]	55.66	99.42	98.29	1.39
BLIND*	56.60	99.17	98.07	1.55
BLIND*[Title/Abstract]	56.60	99.17	98.07	1.55
PLACEBO*	58.49	99.12	98.07	1.56
PLACEBO*[Title/Abstract]	58.49	99.12	98.07	1.56
RANDOMIZED CONTROLLED TRIAL[Publication type]	71.70	98.29	97.60	1.89
BASELINE	35.85	99.02	97.38	2.03
BASELINE[Title/Abstract]	35.85	99.02	97.38	2.03
ASSIGN*	25.47	99.17	97.26	2.22
ASSIGN*[Title/Abstract]	25.47	99.17	97.26	2.22
PARTICIPANT*[Title/Abstract]	25.47	99.17	97.26	2.22
PARTICIPANT*	25.47	99.12	97.21	2.30
DOUBLE[Title/Abstract]	52.83	98.14	96.96	2.32
DOUBLE	52.83	97.99	96.82	2.43
TRIAL*[Title/Abstract]	74.53	97.03	96.45	2.49
INTERVENT*[Title/Abstract]	29.25	97.64	95.86	4.03
INTERVENT*	29.25	97.49	95.72	4.23
SUPPLE*[Title/Abstract]	29.25	97.29	95.52	4.48
Young Adult[MeSH Terms]	27.36	97.29	95.47	4.72
SUPPLE*	31.13	97.03	95.32	4.58
SCORE*	30.19	96.91	95.18	4.84
SCORE*[Title/Abstract]	30.19	96.91	95.18	4.84
RANDOM*[Title/Abstract]	78.30	95.58	95.13	3.12
TRIAL*	85.85	95.25	95.01	3.08
OUTCOME*[Title/Abstract]	26.42	96.76	94.93	5.61
Aged[MeSH Terms]	34.91	96.48	94.88	4.78
RECEIVE*[Title/Abstract]	49.06	96.10	94.88	3.98
YOUNG	27.36	96.26	94.47	6.14
END[Title/Abstract]	29.25	95.98	94.25	6.16
RANDOM*	80.19	94.60	94.22	3.53
END	29.25	95.85	94.12	6.32
RECEIVE*	49.06	95.28	94.08	4.62
CONTROLL*[Title/Abstract]	66.98	94.80	94.08	3.92
Middle Aged[MeSH Terms]	68.87	94.67	94.00	3.90
SAFETY[Title/Abstract]	27.36	95.50	93.73	7.17
INDEX*[Title/Abstract]	26.42	95.43	93.64	7.50
INDEX*	26.42	95.22	93.44	7.79
OUTCOME*	41.51	94.80	93.41	5.70
CONTROLL*	81.13	93.52	93.19	4.00
YEAR*[Title/Abstract]	25.47	94.95	93.15	8.44
YEAR*	25.47	94.85	93.05	8.59

Single search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
DIETARY	30.19	94.65	92.97	7.66
MIDDLE	68.87	93.11	92.48	4.75
Adult[MeSH Terms]	88.68	92.59	92.48	4.14
DAY*[Title/Abstract]	39.62	93.74	92.34	6.93
DAY*	39.62	93.67	92.26	7.00
SAFETY	27.36	93.89	92.17	9.38
ADULT*	70.75	92.11	91.55	5.19
CONDUCT*[Title/Abstract]	28.30	92.81	91.14	10.53
WEEK*[Title/Abstract]	52.83	92.13	91.11	6.59
WEEK*	52.83	92.11	91.09	6.61
CONDUCT*	28.30	92.11	90.45	11.47
ADVERSE	29.25	90.80	89.20	12.81
HERB*[Title/Abstract]	29.25	90.32	88.74	13.42
TOTAL*	39.62	90.00	88.69	10.48
TOTAL*[Title/Abstract]	39.62	90.00	88.69	10.48
CHINESE[Title/Abstract]	28.30	89.55	87.96	14.87
SERUM[Title/Abstract]	27.36	89.49	87.88	15.41
SERUM	27.36	89.27	87.66	15.72
BLOOD[Title/Abstract]	27.36	89.04	87.44	16.03
EFFICACY[Title/Abstract]	31.13	88.79	87.29	14.52
PATIENT*[Title/Abstract]	74.53	87.58	87.25	7.25
PATIENT*	74.53	87.31	86.98	7.39
EFFICACY	32.08	88.06	86.61	14.97
FOLLOW*	26.42	86.58	85.02	20.07
CLINIC*[Title/Abstract]	83.96	84.34	84.33	8.00
HERB*	39.62	84.07	82.91	16.10
MEASURE*[Title/Abstract]	28.30	84.12	82.67	22.07
GROUP*[Title/Abstract]	84.91	82.43	82.50	8.77
MEASURE*	29.25	83.69	82.28	21.94
CHANGE*[Title/Abstract]	35.85	83.46	82.23	18.32
CHANGE*	35.85	83.39	82.15	18.39
TWO[Title/Abstract]	41.51	82.76	81.69	16.59
TWO	41.51	82.71	81.64	16.64
OBSERVE*[Title/Abstract]	29.25	82.26	80.88	23.77
OBSERVE*	29.25	82.21	80.83	23.84
TRADIT*[Title/Abstract]	28.30	81.08	79.71	26.10
MEDICINE*[Title/Abstract]	36.79	80.72	79.58	20.67
Female[MeSH Terms]	85.85	79.17	79.34	10.11
FEMALE	86.79	79.04	79.24	10.07
CONTROL*[Title/Abstract]	76.42	79.24	79.17	11.20
ASSESS*[Title/Abstract]	41.51	79.72	78.73	19.34
GROUP*	85.85	78.49	78.68	10.41
IMPROVE*[Title/Abstract]	36.79	79.72	78.60	21.69
IMPROVE*	36.79	79.37	78.26	22.05
BLOOD	43.40	79.14	78.21	19.04

Single search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
ASSESS*	41.51	78.94	77.97	20.05
EXTRACT*[Title/Abstract]	27.36	78.89	77.55	29.97
analysis[MeSH Terms]	32.08	78.34	77.14	26.35
COMPARE*	61.32	77.48	77.06	14.78
COMPARE*[Title/Abstract]	61.32	77.48	77.06	14.78
AFTER[Title/Abstract]	53.77	76.90	76.30	17.12
AFTER	53.77	76.88	76.28	17.14
CHINESE	34.91	77.21	76.11	25.51
BASE*[Title/Abstract]	47.17	76.20	75.45	19.94
Plant Extracts[MeSH Terms]	45.28	75.82	75.03	21.04
AIM*	30.19	76.07	74.88	30.75
AIM*[Title/Abstract]	30.19	76.07	74.88	30.75
EXTRACT*	31.13	76.02	74.86	29.91
DISEASE*[Title/Abstract]	41.51	75.37	74.49	23.27
DECREASE*	41.51	75.32	74.44	23.32
DECREASE*[Title/Abstract]	41.51	75.32	74.44	23.32

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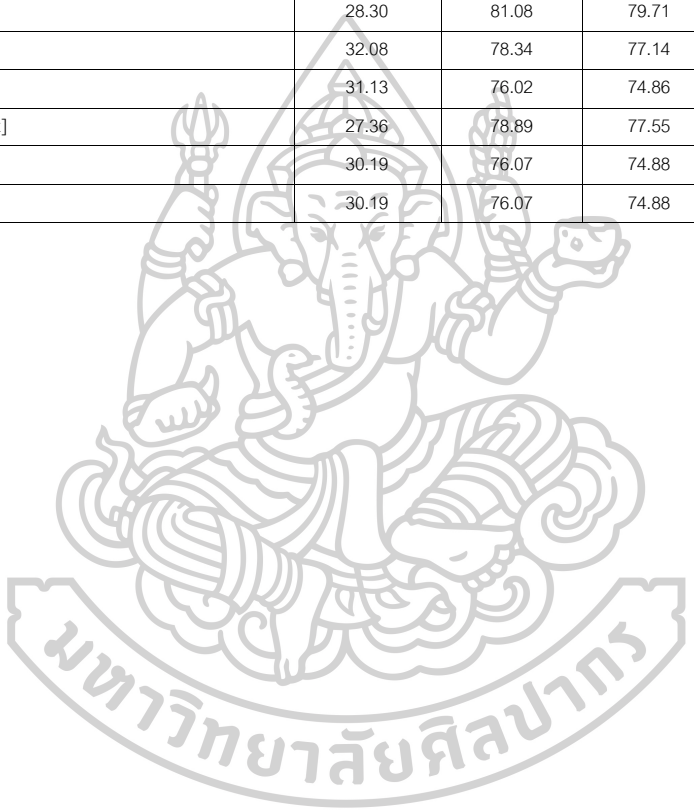
Appendix 5

Single search terms sorted by NNR (lowest to highest)

Single search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Double-Blind Method[MeSH Terms]	55.66	99.42	98.29	1.39
BLIND*	56.60	99.17	98.07	1.55
BLIND*[Title/Abstract]	56.60	99.17	98.07	1.55
PLACEBO*	58.49	99.12	98.07	1.56
PLACEBO*[Title/Abstract]	58.49	99.12	98.07	1.56
RANDOMIZED CONTROLLED TRIAL[Publication type]	71.70	98.29	97.60	1.89
BASELINE	35.85	99.02	97.38	2.03
BASELINE[Title/Abstract]	35.85	99.02	97.38	2.03
ASSIGN*	25.47	99.17	97.26	2.22
ASSIGN*[Title/Abstract]	25.47	99.17	97.26	2.22
PARTICIPANT*[Title/Abstract]	25.47	99.17	97.26	2.22
PARTICIPANT*	25.47	99.12	97.21	2.30
DOUBLE[Title/Abstract]	52.83	98.14	96.96	2.32
DOUBLE	52.83	97.99	96.82	2.43
TRIAL*[Title/Abstract]	74.53	97.03	96.45	2.49
TRIAL*	85.85	95.25	95.01	3.08
RANDOM*[Title/Abstract]	78.30	95.58	95.13	3.12
RANDOM*	80.19	94.60	94.22	3.53
Middle Aged[MeSH Terms]	68.87	94.67	94.00	3.90
CONTROLL*[Title/Abstract]	66.98	94.80	94.08	3.92
RECEIVE*[Title/Abstract]	49.06	96.10	94.88	3.98
CONTROLL*	81.13	93.52	93.19	4.00
INTERVENT*[Title/Abstract]	29.25	97.64	95.86	4.03
Adult[MeSH Terms]	88.68	92.59	92.48	4.14
INTERVENT*	29.25	97.49	95.72	4.23
SUPPLE*[Title/Abstract]	29.25	97.29	95.52	4.48
SUPPLE*	31.13	97.03	95.32	4.58
RECEIVE*	49.06	95.28	94.08	4.62
Young Adult[MeSH Terms]	27.36	97.29	95.47	4.72
MIDDLE	68.87	93.11	92.48	4.75
Aged[MeSH Terms]	34.91	96.48	94.88	4.78
SCORE*	30.19	96.91	95.18	4.84
SCORE*[Title/Abstract]	30.19	96.91	95.18	4.84
ADULT*	70.75	92.11	91.55	5.19
OUTCOME*[Title/Abstract]	26.42	96.76	94.93	5.61
OUTCOME*	41.51	94.80	93.41	5.70
YOUNG	27.36	96.26	94.47	6.14
END[Title/Abstract]	29.25	95.98	94.25	6.16
END	29.25	95.85	94.12	6.32
WEEK*[Title/Abstract]	52.83	92.13	91.11	6.59
WEEK*	52.83	92.11	91.09	6.61

Single search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
DAY*[Title/Abstract]	39.62	93.74	92.34	6.93
DAY*	39.62	93.67	92.26	7.00
SAFETY[Title/Abstract]	27.36	95.50	93.73	7.17
PATIENT*[Title/Abstract]	74.53	87.58	87.25	7.25
PATIENT*	74.53	87.31	86.98	7.39
INDEX*[Title/Abstract]	26.42	95.43	93.64	7.50
DIETARY	30.19	94.65	92.97	7.66
INDEX*	26.42	95.22	93.44	7.79
CLINIC*[Title/Abstract]	83.96	84.34	84.33	8.00
YEAR*[Title/Abstract]	25.47	94.95	93.15	8.44
YEAR*	25.47	94.85	93.05	8.59
GROUP*[Title/Abstract]	84.91	82.43	82.50	8.77
SAFETY	27.36	93.89	92.17	9.38
FEMALE	86.79	79.04	79.24	10.07
Female[MeSH Terms]	85.85	79.17	79.34	10.11
GROUP*	85.85	78.49	78.68	10.41
TOTAL*	39.62	90.00	88.69	10.48
TOTAL*[Title/Abstract]	39.62	90.00	88.69	10.48
CONDUCT*[Title/Abstract]	28.30	92.81	91.14	10.53
CONTROL*[Title/Abstract]	76.42	79.24	79.17	11.20
CONDUCT*	28.30	92.11	90.45	11.47
ADVERSE	29.25	90.80	89.20	12.81
HERB*[Title/Abstract]	29.25	90.32	88.74	13.42
EFFICACY[Title/Abstract]	31.13	88.79	87.29	14.52
COMPARE*	61.32	77.48	77.06	14.78
COMPARE*[Title/Abstract]	61.32	77.48	77.06	14.78
CHINESE[Title/Abstract]	28.30	89.55	87.96	14.87
EFFICACY	32.08	88.06	86.61	14.97
SERUM[Title/Abstract]	27.36	89.49	87.88	15.41
SERUM	27.36	89.27	87.66	15.72
BLOOD[Title/Abstract]	27.36	89.04	87.44	16.03
HERB*	39.62	84.07	82.91	16.10
TWO[Title/Abstract]	41.51	82.76	81.69	16.59
TWO	41.51	82.71	81.64	16.64
AFTER[Title/Abstract]	53.77	76.90	76.30	17.12
AFTER	53.77	76.88	76.28	17.14
CHANGE*[Title/Abstract]	35.85	83.46	82.23	18.32
CHANGE*	35.85	83.39	82.15	18.39
BLOOD	43.40	79.14	78.21	19.04
ASSESS*[Title/Abstract]	41.51	79.72	78.73	19.34
BASE*[Title/Abstract]	47.17	76.20	75.45	19.94
ASSESS*	41.51	78.94	77.97	20.05
FOLLOW*	26.42	86.58	85.02	20.07
MEDICINE*[Title/Abstract]	36.79	80.72	79.58	20.67
Plant Extracts[MeSH Terms]	45.28	75.82	75.03	21.04

Single search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
IMPROVE*[Title/Abstract]	36.79	79.72	78.60	21.69
MEASURE*	29.25	83.69	82.28	21.94
IMPROVE*	36.79	79.37	78.26	22.05
MEASURE*[Title/Abstract]	28.30	84.12	82.67	22.07
DISEASE*[Title/Abstract]	41.51	75.37	74.49	23.27
DECREASE*	41.51	75.32	74.44	23.32
DECREASE*[Title/Abstract]	41.51	75.32	74.44	23.32
OBSERVE*[Title/Abstract]	29.25	82.26	80.88	23.77
OBSERVE*	29.25	82.21	80.83	23.84
CHINESE	34.91	77.21	76.11	25.51
TRADIT*[Title/Abstract]	28.30	81.08	79.71	26.10
analysis[MeSH Terms]	32.08	78.34	77.14	26.35
EXTRACT*	31.13	76.02	74.86	29.91
EXTRACT*[Title/Abstract]	27.36	78.89	77.55	29.97
AIM*	30.19	76.07	74.88	30.75
AIM*[Title/Abstract]	30.19	76.07	74.88	30.75



Appendix 6

Two-term search combinations sorted by sensitivity (highest to lowest)

Two-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR TRIAL*	98.11	90.05	90.26	4.81
Adult[MeSH Terms] OR TRIAL*[Title/Abstract]	97.17	90.78	90.94	4.56
TRIAL*[Title/Abstract] OR ADULT*	95.28	90.15	90.28	4.88
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type]	94.34	92.28	92.34	4.07
Adult[MeSH Terms] OR PLACEBO*	94.34	92.26	92.31	4.08
TRIAL* OR Middle Aged[MeSH Terms]	94.34	91.38	91.46	4.43
Adult[MeSH Terms] OR BLIND*	93.40	92.26	92.29	4.11
Adult[MeSH Terms] OR BLIND*[Title/Abstract]	93.40	92.26	92.29	4.11
Adult[MeSH Terms] OR DOUBLE[Title/Abstract]	93.40	91.15	91.21	4.56
Adult[MeSH Terms] OR DOUBLE	93.40	91.00	91.06	4.62
TRIAL* OR YEAR*[Title/Abstract]	93.40	90.65	90.72	4.76
TRIAL* OR YEAR*	93.40	90.55	90.62	4.80
RANDOM* OR Middle Aged[MeSH Terms]	93.40	90.35	90.43	4.88
Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	93.40	90.22	90.31	4.93
TRIAL* OR Young Adult[MeSH Terms]	92.45	93.49	93.46	3.64
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	92.45	92.51	92.51	4.04
TRIAL* OR YOUNG	92.45	92.51	92.51	4.04
TRIAL* OR Aged[MeSH Terms]	92.45	92.46	92.46	4.06
Adult[MeSH Terms] OR BASELINE	92.45	92.18	92.19	4.17
Adult[MeSH Terms] OR ASSIGN*	92.45	91.93	91.95	4.28
Adult[MeSH Terms] OR ASSIGN*[Title/Abstract]	92.45	91.93	91.95	4.28
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	92.45	91.10	91.14	4.61
TRIAL* OR INTERVENT*[Title/Abstract]	90.57	93.21	93.15	3.81
TRIAL* OR INTERVENT*	90.57	93.09	93.02	3.86
TRIAL* OR SCORE*	90.57	92.74	92.68	4.01
TRIAL* OR SCORE*[Title/Abstract]	90.57	92.74	92.68	4.01
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	90.57	92.44	92.39	4.14
Adult[MeSH Terms] OR PARTICIPANT*[Title/Abstract]	90.57	92.39	92.34	4.16
Adult[MeSH Terms] OR PARTICIPANT*	90.57	92.39	92.34	4.16
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	90.57	91.58	91.55	4.49
TRIAL* OR OUTCOME*	90.57	91.53	91.51	4.51
TRIAL*[Title/Abstract] OR MIDDLE	90.57	90.88	90.87	4.78
Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	90.57	90.65	90.65	4.88
Adult[MeSH Terms] OR INTERVENT*	90.57	90.55	90.55	4.92
Adult[MeSH Terms] OR SCORE*	90.57	90.27	90.28	5.03
Adult[MeSH Terms] OR SCORE*[Title/Abstract]	90.57	90.27	90.28	5.03
Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	90.57	90.12	90.13	5.09

Appendix 7

Two-term search combinations sorted by specificity (highest to lowest)

Two-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR Young Adult[MeSH Terms]	92.45	93.49	93.46	3.64
TRIAL* OR INTERVENT*[Title/Abstract]	90.57	93.21	93.15	3.81
TRIAL* OR INTERVENT*	90.57	93.09	93.02	3.86
TRIAL* OR SCORE*	90.57	92.74	92.68	4.01
TRIAL* OR SCORE*[Title/Abstract]	90.57	92.74	92.68	4.01
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	92.45	92.51	92.51	4.04
TRIAL* OR YOUNG	92.45	92.51	92.51	4.04
TRIAL* OR Aged[MeSH Terms]	92.45	92.46	92.46	4.06
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	90.57	92.44	92.39	4.14
Adult[MeSH Terms] OR PARTICIPANT*[Title/Abstract]	90.57	92.39	92.34	4.16
Adult[MeSH Terms] OR PARTICIPANT*	90.57	92.39	92.34	4.16
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type]	94.34	92.28	92.34	4.07
Adult[MeSH Terms] OR PLACEBO*	94.34	92.26	92.31	4.08
Adult[MeSH Terms] OR BLIND*	93.40	92.26	92.29	4.11
Adult[MeSH Terms] OR BLIND*[Title/Abstract]	93.40	92.26	92.29	4.11
Adult[MeSH Terms] OR BASELINE	92.45	92.18	92.19	4.17
Adult[MeSH Terms] OR ASSIGN*	92.45	91.93	91.95	4.28
Adult[MeSH Terms] OR ASSIGN*[Title/Abstract]	92.45	91.93	91.95	4.28
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	90.57	91.58	91.55	4.49
TRIAL* OR OUTCOME*	90.57	91.53	91.51	4.51
TRIAL* OR Middle Aged[MeSH Terms]	94.34	91.38	91.46	4.43
Adult[MeSH Terms] OR DOUBLE[Title/Abstract]	93.40	91.15	91.21	4.56
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	92.45	91.10	91.14	4.61
Adult[MeSH Terms] OR DOUBLE	93.40	91.00	91.06	4.62
TRIAL*[Title/Abstract] OR MIDDLE	90.57	90.88	90.87	4.78
Adult[MeSH Terms] OR TRIAL*[Title/Abstract]	97.17	90.78	90.94	4.56
TRIAL* OR YEAR*[Title/Abstract]	93.40	90.65	90.72	4.76
Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	90.57	90.65	90.65	4.88
TRIAL* OR YEAR*	93.40	90.55	90.62	4.80
Adult[MeSH Terms] OR INTERVENT*	90.57	90.55	90.55	4.92
RANDOM* OR Middle Aged[MeSH Terms]	93.40	90.35	90.43	4.88
Adult[MeSH Terms] OR SCORE*	90.57	90.27	90.28	5.03
Adult[MeSH Terms] OR SCORE*[Title/Abstract]	90.57	90.27	90.28	5.03
Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	93.40	90.22	90.31	4.93
TRIAL*[Title/Abstract] OR ADULT*	95.28	90.15	90.28	4.88
Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	90.57	90.12	90.13	5.09
Adult[MeSH Terms] OR TRIAL*	98.11	90.05	90.26	4.81

Appendix 8

Two-term search combinations sorted by accuracy (highest to lowest)

Two-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR Young Adult[MeSH Terms]	92.45	93.49	93.46	3.64
TRIAL* OR INTERVENT*[Title/Abstract]	90.57	93.21	93.15	3.81
TRIAL* OR INTERVENT*	90.57	93.09	93.02	3.86
TRIAL* OR SCORE*	90.57	92.74	92.68	4.01
TRIAL* OR SCORE*[Title/Abstract]	90.57	92.74	92.68	4.01
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	92.45	92.51	92.51	4.04
TRIAL* OR YOUNG	92.45	92.51	92.51	4.04
TRIAL* OR Aged[MeSH Terms]	92.45	92.46	92.46	4.06
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	90.57	92.44	92.39	4.14
Adult[MeSH Terms] OR PARTICIPANT*[Title/Abstract]	90.57	92.39	92.34	4.16
Adult[MeSH Terms] OR PARTICIPANT*	90.57	92.39	92.34	4.16
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type]	94.34	92.28	92.34	4.07
Adult[MeSH Terms] OR PLACEBO*	94.34	92.26	92.31	4.08
Adult[MeSH Terms] OR BLIND*	93.40	92.26	92.29	4.11
Adult[MeSH Terms] OR BLIND*[Title/Abstract]	93.40	92.26	92.29	4.11
Adult[MeSH Terms] OR BASELINE	92.45	92.18	92.19	4.17
Adult[MeSH Terms] OR ASSIGN*	92.45	91.93	91.95	4.28
Adult[MeSH Terms] OR ASSIGN*[Title/Abstract]	92.45	91.93	91.95	4.28
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	90.57	91.58	91.55	4.49
TRIAL* OR OUTCOME*	90.57	91.53	91.51	4.51
TRIAL* OR Middle Aged[MeSH Terms]	94.34	91.38	91.46	4.43
Adult[MeSH Terms] OR DOUBLE[Title/Abstract]	93.40	91.15	91.21	4.56
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	92.45	91.10	91.14	4.61
Adult[MeSH Terms] OR DOUBLE	93.40	91.00	91.06	4.62
Adult[MeSH Terms] OR TRIAL*[Title/Abstract]	97.17	90.78	90.94	4.56
TRIAL*[Title/Abstract] OR MIDDLE	90.57	90.88	90.87	4.78
TRIAL* OR YEAR*[Title/Abstract]	93.40	90.65	90.72	4.76
Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	90.57	90.65	90.65	4.88
TRIAL* OR YEAR*	93.40	90.55	90.62	4.80
Adult[MeSH Terms] OR INTERVENT*	90.57	90.55	90.55	4.92
RANDOM* OR Middle Aged[MeSH Terms]	93.40	90.35	90.43	4.88
Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	93.40	90.22	90.31	4.93
Adult[MeSH Terms] OR SCORE*	90.57	90.27	90.28	5.03
Adult[MeSH Terms] OR SCORE*[Title/Abstract]	90.57	90.27	90.28	5.03
TRIAL*[Title/Abstract] OR ADULT*	95.28	90.15	90.28	4.88
Adult[MeSH Terms] OR TRIAL*	98.11	90.05	90.26	4.81
Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	90.57	90.12	90.13	5.09

Appendix 9

Two-term search combinations sorted by NNR (lowest to highest)

Two-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR Young Adult[MeSH Terms]	92.45	93.49	93.46	3.64
TRIAL* OR INTERVENT*[Title/Abstract]	90.57	93.21	93.15	3.81
TRIAL* OR INTERVENT*	90.57	93.09	93.02	3.86
TRIAL* OR SCORE*	90.57	92.74	92.68	4.01
TRIAL* OR SCORE*[Title/Abstract]	90.57	92.74	92.68	4.01
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	92.45	92.51	92.51	4.04
TRIAL* OR YOUNG	92.45	92.51	92.51	4.04
TRIAL* OR Aged[MeSH Terms]	92.45	92.46	92.46	4.06
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type]	94.34	92.28	92.34	4.07
Adult[MeSH Terms] OR PLACEBO*	94.34	92.26	92.31	4.08
Adult[MeSH Terms] OR BLIND*	93.40	92.26	92.29	4.11
Adult[MeSH Terms] OR BLIND*[Title/Abstract]	93.40	92.26	92.29	4.11
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	90.57	92.44	92.39	4.14
Adult[MeSH Terms] OR PARTICIPANT*[Title/Abstract]	90.57	92.39	92.34	4.16
Adult[MeSH Terms] OR PARTICIPANT*	90.57	92.39	92.34	4.16
Adult[MeSH Terms] OR BASELINE	92.45	92.18	92.19	4.17
Adult[MeSH Terms] OR ASSIGN*	92.45	91.93	91.95	4.28
Adult[MeSH Terms] OR ASSIGN*[Title/Abstract]	92.45	91.93	91.95	4.28
TRIAL* OR Middle Aged[MeSH Terms]	94.34	91.38	91.46	4.43
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	90.57	91.58	91.55	4.49
TRIAL* OR OUTCOME*	90.57	91.53	91.51	4.51
Adult[MeSH Terms] OR DOUBLE[Title/Abstract]	93.40	91.15	91.21	4.56
Adult[MeSH Terms] OR TRIAL*[Title/Abstract]	97.17	90.78	90.94	4.56
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	92.45	91.10	91.14	4.61
Adult[MeSH Terms] OR DOUBLE	93.40	91.00	91.06	4.62
TRIAL* OR YEAR*[Title/Abstract]	93.40	90.65	90.72	4.76
TRIAL*[Title/Abstract] OR MIDDLE	90.57	90.88	90.87	4.78
TRIAL* OR YEAR*	93.40	90.55	90.62	4.80
Adult[MeSH Terms] OR TRIAL*	98.11	90.05	90.26	4.81
Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	90.57	90.65	90.65	4.88
RANDOM* OR Middle Aged[MeSH Terms]	93.40	90.35	90.43	4.88
TRIAL*[Title/Abstract] OR ADULT*	95.28	90.15	90.28	4.88
Adult[MeSH Terms] OR INTERVENT*	90.57	90.55	90.55	4.92
Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	93.40	90.22	90.31	4.93
Adult[MeSH Terms] OR SCORE*	90.57	90.27	90.28	5.03
Adult[MeSH Terms] OR SCORE*[Title/Abstract]	90.57	90.27	90.28	5.03
Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	90.57	90.12	90.13	5.09

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Appendix 10

Three/four-term search combinations sorted by sensitivity (highest to lowest)

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR ASSIGN*	100.00	85.73	86.10	6.36
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR ASSIGN*	100.00	85.67	86.05	6.38
Adult[MeSH Terms] OR TRIAL* OR ASSIGN*	99.06	89.42	89.67	5.01
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR ASSIGN*	99.06	89.42	89.67	5.01
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR ASSIGN*	99.06	89.42	89.67	5.01
Adult[MeSH Terms] OR ASSIGN* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	89.19	89.45	5.10
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR ASSIGN*	99.06	88.51	88.79	5.35
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR ASSIGN*	99.06	88.44	88.71	5.38
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR INTERVENT*[Title/Abstract]	99.06	87.64	87.93	5.69
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR INTERVENT*	99.06	87.56	87.86	5.71
TRIAL* OR Middle Aged[MeSH Terms] OR YEAR*[Title/Abstract]	99.06	87.51	87.81	5.73
TRIAL* OR YEAR*[Title/Abstract] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	87.51	87.81	5.73
TRIAL* OR Middle Aged[MeSH Terms] OR YEAR*	99.06	87.43	87.74	5.76
TRIAL* OR YEAR* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	87.43	87.74	5.76
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR SCORE*	99.06	87.28	87.59	5.82
Adult[MeSH Terms] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR OUTCOME*	99.06	87.03	87.34	5.91
Adult[MeSH Terms] OR PARTICIPANT* OR TRIAL* OR OUTCOME*	99.06	87.03	87.34	5.91
Adult[MeSH Terms] OR BASELINE OR TRIAL* OR OUTCOME*	99.06	86.91	87.22	5.96
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR OUTCOME*	99.06	86.55	86.88	6.10
Adult[MeSH Terms] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	99.06	86.38	86.71	6.16
Adult[MeSH Terms] OR TRIAL* OR YEAR*	99.06	86.30	86.63	6.19
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR YEAR*	99.06	86.30	86.63	6.19
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR YEAR*	99.06	86.30	86.63	6.19
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	99.06	86.30	86.63	6.19
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.20	86.54	6.23
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR PARTICIPANT*	99.06	86.20	86.54	6.23

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR OUTCOME*	99.06	86.13	86.46	6.26
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR YEAR*	99.06	86.13	86.46	6.26
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR PARTICIPANT*	99.06	86.13	86.46	6.26
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR TRIAL* OR OUTCOME*	99.06	86.13	86.46	6.26
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR BASELINE	99.06	86.05	86.39	6.29
TRIAL* OR YEAR*[Title/Abstract] OR TRIAL*[Title/Abstract] OR MIDDLE	99.06	86.05	86.39	6.29
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR BASELINE	99.06	85.98	86.32	6.31
TRIAL* OR YEAR* OR TRIAL*[Title/Abstract] OR MIDDLE	99.06	85.98	86.32	6.31
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	99.06	85.52	85.88	6.49
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR YEAR*[Title/Abstract]	99.06	85.50	85.85	6.50
TRIAL* OR YEAR*[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	99.06	85.50	85.85	6.50
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR INTERVENT*	99.06	85.45	85.80	6.51
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR YEAR*	99.06	85.42	85.78	6.52
TRIAL* OR YEAR* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	99.06	85.42	85.78	6.52
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR SCORE*	99.06	85.10	85.46	6.65
TRIAL* OR YEAR*[Title/Abstract] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	85.05	85.41	6.67
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	85.00	85.36	6.69
TRIAL* OR YEAR* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	84.97	85.34	6.70
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	99.06	84.77	85.14	6.77
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR INTERVENT*	99.06	84.69	85.07	6.80
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	99.06	84.69	85.07	6.80
TRIAL* OR YEAR*[Title/Abstract] OR RANDOM* OR Middle Aged[MeSH Terms]	99.06	84.64	85.02	6.82
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR INTERVENT*	99.06	84.62	84.99	6.83
TRIAL* OR YEAR* OR RANDOM* OR Middle Aged[MeSH Terms]	99.06	84.57	84.94	6.85
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SCORE*	99.06	84.47	84.85	6.89
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR Double-Blind Method[MeSH Terms]	98.11	90.75	90.94	4.54
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.75	90.94	4.54
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type]	98.11	90.60	90.80	4.60
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.60	90.80	4.60
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR PLACEBO*	98.11	90.58	90.77	4.61
Adult[MeSH Terms] OR PLACEBO* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.58	90.77	4.61

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR BASELINE	98.11	90.42	90.62	4.66
Adult[MeSH Terms] OR BASELINE OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.42	90.62	4.66
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR ASSIGN*	98.11	90.15	90.35	4.77
Adult[MeSH Terms] OR ASSIGN* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.15	90.35	4.77
Adult[MeSH Terms] OR TRIAL* OR TRIAL*[Title/Abstract]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR RANDOMIZED CONTROLLED TRIAL[Publication Type]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR Young Adult[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR Double-Blind Method[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR Young Adult[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR Young Adult[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR Aged[MeSH Terms]	98.11	90.07	90.28	4.80
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	98.11	90.07	90.28	4.80
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR PARTICIPANT*	98.11	89.90	90.11	4.87
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	89.90	90.11	4.87
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	89.90	90.11	4.87
Adult[MeSH Terms] OR TRIAL* OR PLACEBO*	98.11	89.87	90.09	4.88
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	89.87	90.09	4.88
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR Young Adult[MeSH Terms]	98.11	89.87	90.09	4.88
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR Aged[MeSH Terms]	98.11	89.87	90.09	4.88
Adult[MeSH Terms] OR TRIAL* OR BLIND*	98.11	89.85	90.06	4.88
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR BLIND*	98.11	89.85	90.06	4.88
Adult[MeSH Terms] OR TRIAL* OR BASELINE	98.11	89.75	89.96	4.92
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR BASELINE	98.11	89.75	89.96	4.92
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR BASELINE	98.11	89.75	89.96	4.92
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.52	89.74	5.01
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.42	89.65	5.05

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	89.39	89.62	5.06
Adult[MeSH Terms] OR PLACEBO* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.37	89.60	5.07
Adult[MeSH Terms] OR BLIND* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.37	89.60	5.07
Adult[MeSH Terms] OR BASELINE OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.27	89.50	5.11
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	89.22	89.45	5.13
Adult[MeSH Terms] OR TRIAL* OR YOUNG	98.11	89.09	89.33	5.17
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR YOUNG	98.11	89.09	89.33	5.17
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR YOUNG	98.11	89.09	89.33	5.17
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR YOUNG	98.11	89.09	89.33	5.17
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	89.07	89.30	5.18
Adult[MeSH Terms] OR PLACEBO* OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	89.07	89.30	5.18
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	88.92	89.16	5.24
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	88.89	89.13	5.25
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR YOUNG	98.11	88.89	89.13	5.25
Adult[MeSH Terms] OR BASELINE OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	88.89	89.13	5.25
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	98.11	88.84	89.08	5.27
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR BASELINE	98.11	88.77	89.01	5.30
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR OUTCOME*[Title/Abstract]	98.11	88.72	88.96	5.32
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	88.72	88.96	5.32
Adult[MeSH Terms] OR TRIAL* OR DOUBLE[Title/Abstract]	98.11	88.69	88.94	5.33
Adult[MeSH Terms] OR PLACEBO* OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	88.69	88.94	5.33
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR DOUBLE[Title/Abstract]	98.11	88.69	88.94	5.33
Adult[MeSH Terms] OR BLIND* OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	88.69	88.94	5.33
Adult[MeSH Terms] OR ASSIGN* OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	88.62	88.86	5.36
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	98.11	88.59	88.84	5.37
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR BASELINE	98.11	88.59	88.84	5.37
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	88.59	88.84	5.37
Adult[MeSH Terms] OR TRIAL* OR DOUBLE	98.11	88.56	88.81	5.38
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR DOUBLE	98.11	88.56	88.81	5.38
Adult[MeSH Terms] OR TRIAL* OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	88.54	88.79	5.38
TRIAL* OR YEAR*[Title/Abstract] OR Aged[MeSH Terms]	98.11	88.51	88.76	5.39
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	88.44	88.69	5.42

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type]	98.11	88.44	88.69	5.42
TRIAL* OR YEAR* OR Aged[MeSH Terms]	98.11	88.44	88.69	5.42
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR PLACEBO*	98.11	88.41	88.67	5.43
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR Aged[MeSH Terms]	98.11	88.31	88.57	5.47
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR BASELINE	98.11	88.29	88.54	5.48
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	88.29	88.54	5.48
Adult[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
Adult[MeSH Terms] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	98.11	88.16	88.42	5.53
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	98.11	88.16	88.42	5.53
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms] OR INTERVENT*	98.11	88.16	88.42	5.53
TRIAL* OR INTERVENT* OR Adult[MeSH Terms]	98.11	88.16	88.42	5.53
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	88.14	88.40	5.54
Adult[MeSH Terms] OR DOUBLE OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	88.14	88.40	5.54
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	88.06	88.32	5.57
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR ASSIGN*	98.11	88.06	88.32	5.57
TRIAL* OR Middle Aged[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	88.06	88.32	5.57
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	88.06	88.32	5.57
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.04	88.30	5.58
Adult[MeSH Terms] OR TRIAL* OR OUTCOME*[Title/Abstract]	98.11	87.99	88.25	5.60
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	98.11	87.99	88.25	5.60
TRIAL* OR INTERVENT* OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	87.99	88.25	5.60
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR INTERVENT*	98.11	87.96	88.23	5.61

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR BASELINE OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	87.94	88.20	5.62
Adult[MeSH Terms] OR TRIAL* OR TRIAL*[Title/Abstract] OR ADULT*	98.11	87.91	88.18	5.63
Adult[MeSH Terms] OR TRIAL* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	87.91	88.18	5.63
Adult[MeSH Terms] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	98.11	87.89	88.15	5.63
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
TRIAL* OR SCORE* OR Adult[MeSH Terms]	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR BASELINE OR TRIAL* OR INTERVENT*	98.11	87.86	88.13	5.64
Adult[MeSH Terms] OR TRIAL* OR SUPPLE*[Title/Abstract]	98.11	87.74	88.00	5.69
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	87.74	88.00	5.69
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	87.74	88.00	5.69
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	87.74	88.00	5.69
TRIAL* OR SCORE* OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	87.71	87.98	5.70
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR SCORE*	98.11	87.69	87.96	5.71
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	98.11	87.64	87.91	5.73
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	87.61	87.88	5.74
Adult[MeSH Terms] OR BASELINE OR TRIAL* OR SCORE*	98.11	87.58	87.86	5.75
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	87.53	87.81	5.77
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	87.51	87.78	5.78
Adult[MeSH Terms] OR TRIAL* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	87.48	87.76	5.79
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	98.11	87.48	87.76	5.79
Adult[MeSH Terms] OR DOUBLE OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	87.46	87.74	5.80
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	87.33	87.61	5.85
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR INTERVENT*	98.11	87.26	87.54	5.88
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	87.18	87.47	5.90
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	87.13	87.42	5.92
Adult[MeSH Terms] OR TRIAL* OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	87.06	87.34	5.95
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	87.06	87.34	5.95
RANDOM* OR Middle Aged[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	87.01	87.29	5.97

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	98.11	86.96	87.25	5.99
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR SCORE*	98.11	86.93	87.22	6.00
TRIAL* OR SCORE* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	86.93	87.22	6.00
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR SCORE*	98.11	86.91	87.20	6.01
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	98.11	86.88	87.17	6.02
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	98.11	86.81	87.10	6.05
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	86.78	87.07	6.06
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	98.11	86.58	86.88	6.13
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	86.50	86.81	6.16
TRIAL*[Title/Abstract] OR ADULT* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	86.28	86.59	6.25
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms] OR SCORE*	98.11	86.10	86.41	6.32
TRIAL* OR SCORE* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	86.10	86.41	6.32
TRIAL* OR INTERVENT* OR Adult[MeSH Terms] OR SCORE*	98.11	86.03	86.34	6.35
TRIAL* OR SCORE* OR Adult[MeSH Terms] OR INTERVENT*	98.11	86.03	86.34	6.35
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	85.93	86.24	6.38
TRIAL* OR INTERVENT* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	85.85	86.17	6.41
TRIAL*[Title/Abstract] OR ADULT* OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	85.70	86.02	6.47
TRIAL* OR SCORE* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	85.65	85.97	6.49
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	97.17	90.80	90.97	4.55
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR PARTICIPANT*	97.17	90.63	90.80	4.62
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	97.17	90.63	90.80	4.62
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR BLIND*	97.17	90.55	90.72	4.65
Adult[MeSH Terms] OR BLIND* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	97.17	90.55	90.72	4.65
TRIAL*[Title/Abstract] OR ADULT* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	89.85	90.04	4.92
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR DOUBLE[Title/Abstract]	97.17	89.42	89.62	5.09
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	97.17	89.42	89.62	5.09
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR DOUBLE	97.17	89.29	89.50	5.14
Adult[MeSH Terms] OR DOUBLE OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	97.17	89.29	89.50	5.14
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	89.27	89.47	5.15
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR Young Adult[MeSH Terms]	97.17	89.27	89.47	5.15
TRIAL* OR Young Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	89.27	89.47	5.15
TRIAL* OR YEAR*[Title/Abstract] OR Young Adult[MeSH Terms]	97.17	89.24	89.45	5.16
TRIAL* OR YEAR* OR Young Adult[MeSH Terms]	97.17	89.14	89.35	5.19
Adult[MeSH Terms] OR PARTICIPANT* OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	89.09	89.30	5.21
Adult[MeSH Terms] OR BLIND* OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	89.02	89.23	5.24
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR INTERVENT*[Title/Abstract]	97.17	88.94	89.16	5.27

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	97.17	88.94	89.16	5.27
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR INTERVENT*	97.17	88.87	89.08	5.30
TRIAL*[Title/Abstract] OR ADULT* OR Middle Aged[MeSH Terms]	97.17	88.87	89.08	5.30
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	97.17	88.87	89.08	5.30
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR ADULT*	97.17	88.64	88.86	5.39
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR SCORE*	97.17	88.56	88.79	5.42
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	97.17	88.56	88.79	5.42
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR YOUNG	97.17	88.49	88.71	5.45
TRIAL* OR YOUNG OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	88.49	88.71	5.45
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR PARTICIPANT*	97.17	88.46	88.69	5.46
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR SUPPLE*[Title/Abstract]	97.17	88.39	88.62	5.49
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR BLIND*	97.17	88.39	88.62	5.49
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	97.17	88.39	88.62	5.49
TRIAL* OR YEAR*[Title/Abstract] OR YOUNG	97.17	88.29	88.52	5.52
TRIAL* OR YEAR* OR YOUNG	97.17	88.19	88.42	5.56
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	87.94	88.18	5.66
Adult[MeSH Terms] OR DOUBLE OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	87.81	88.05	5.71
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR INTERVENT*[Title/Abstract]	97.17	87.48	87.74	5.83
TRIAL* OR INTERVENT*[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	87.48	87.74	5.83
TRIAL*[Title/Abstract] OR MIDDLE OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	97.17	87.46	87.71	5.84
TRIAL*[Title/Abstract] OR ADULT* OR MIDDLE	97.17	87.41	87.66	5.86
TRIAL*[Title/Abstract] OR MIDDLE OR Adult[MeSH Terms] OR INTERVENT*	97.17	87.38	87.64	5.87
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR INTERVENT*	97.17	87.36	87.61	5.88
TRIAL* OR INTERVENT* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	87.36	87.61	5.88
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR DOUBLE[Title/Abstract]	97.17	87.31	87.56	5.90
TRIAL*[Title/Abstract] OR MIDDLE OR Adult[MeSH Terms] OR SCORE*	97.17	87.21	87.47	5.94
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR DOUBLE	97.17	87.18	87.44	5.95
TRIAL*[Title/Abstract] OR MIDDLE OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	97.17	86.96	87.22	6.04
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	97.17	86.83	87.10	6.09
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR INTERVENT*	97.17	86.76	87.03	6.12
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR SCORE*	97.17	86.45	86.73	6.23
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	97.17	86.38	86.66	6.26
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR PARTICIPANT*	96.23	92.08	92.19	4.09
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR BLIND*	96.23	91.98	92.09	4.13
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR PLACEBO*	96.23	91.96	92.07	4.14
Adult[MeSH Terms] OR PLACEBO* OR BLIND*	96.23	91.96	92.07	4.14

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ASSIGN*	96.23	91.63	91.75	4.26
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR DOUBLE[Title/Abstract]	96.23	90.88	91.02	4.56
Adult[MeSH Terms] OR PLACEBO* OR DOUBLE[Title/Abstract]	96.23	90.85	90.99	4.57
TRIAL* OR Middle Aged[MeSH Terms] OR Young Adult[MeSH Terms]	96.23	90.78	90.92	4.60
TRIAL* OR Young Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	96.23	90.78	90.92	4.60
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR DOUBLE	96.23	90.73	90.87	4.62
Adult[MeSH Terms] OR PLACEBO* OR DOUBLE	96.23	90.70	90.84	4.63
Adult[MeSH Terms] OR PLACEBO* OR INTERVENT*[Title/Abstract]	96.23	90.35	90.50	4.76
Adult[MeSH Terms] OR PLACEBO* OR INTERVENT*	96.23	90.25	90.40	4.80
Adult[MeSH Terms] OR PLACEBO* OR OUTCOME*[Title/Abstract]	96.23	89.97	90.13	4.91
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR OUTCOME*[Title/Abstract]	96.23	89.95	90.11	4.92
Adult[MeSH Terms] OR PARTICIPANT* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	89.87	90.04	4.95
TRIAL* OR Middle Aged[MeSH Terms] OR YOUNG	96.23	89.80	89.96	4.98
TRIAL* OR YOUNG OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	96.23	89.80	89.96	4.98
Adult[MeSH Terms] OR BLIND* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	89.77	89.94	4.99
Adult[MeSH Terms] OR PLACEBO* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	89.75	89.91	5.00
TRIAL* OR Middle Aged[MeSH Terms] OR INTERVENT*[Title/Abstract]	96.23	89.55	89.72	5.08
Adult[MeSH Terms] OR ASSIGN* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	89.49	89.67	5.10
TRIAL* OR Middle Aged[MeSH Terms] OR INTERVENT*	96.23	89.47	89.65	5.11
TRIAL* OR Young Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	96.23	89.24	89.42	5.20
Adult[MeSH Terms] OR BLIND* OR OUTCOME*	96.23	88.94	89.13	5.31
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	88.72	88.91	5.40
Adult[MeSH Terms] OR DOUBLE OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	88.56	88.76	5.46
TRIAL* OR YOUNG OR TRIAL*[Title/Abstract] OR MIDDLE	96.23	88.39	88.59	5.53
TRIAL* OR Young Adult[MeSH Terms] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	96.23	88.19	88.40	5.61
TRIAL* OR INTERVENT*[Title/Abstract] OR TRIAL*[Title/Abstract] OR MIDDLE	96.23	88.06	88.27	5.66
TRIAL* OR INTERVENT* OR TRIAL*[Title/Abstract] OR MIDDLE	96.23	87.99	88.20	5.69
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR OUTCOME*	96.23	87.86	88.08	5.74
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR Young Adult[MeSH Terms]	96.23	87.76	87.98	5.77
Adult[MeSH Terms] OR DOUBLE OR OUTCOME*	96.23	87.71	87.93	5.79
TRIAL* OR YEAR*[Title/Abstract] OR OUTCOME*	96.23	87.46	87.69	5.89
TRIAL* OR YEAR* OR OUTCOME*	96.23	87.38	87.61	5.92
TRIAL* OR YOUNG OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	96.23	87.23	87.47	5.98

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	96.23	86.98	87.22	6.08
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR INTERVENT*	96.23	86.91	87.15	6.11
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR YOUNG	96.23	86.83	87.07	6.14
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR SCORE*	96.23	86.71	86.95	6.19
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	96.23	86.55	86.81	6.25
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR INTERVENT*	96.23	86.48	86.73	6.27
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR SCORE*	96.23	86.35	86.61	6.32
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR OUTCOME*	96.23	85.85	86.12	6.52
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR OUTCOME*	96.23	85.45	85.73	6.68
Adult[MeSH Terms] OR PLACEBO* OR Double-Blind Method[MeSH Terms]	95.28	92.23	92.31	4.06
Adult[MeSH Terms] OR PLACEBO* OR PARTICIPANT*	95.28	92.08	92.17	4.12
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR BASELINE	95.28	91.91	92.00	4.19
Adult[MeSH Terms] OR PLACEBO* OR BASELINE	95.28	91.86	91.95	4.21
Adult[MeSH Terms] OR BLIND* OR BASELINE	95.28	91.86	91.95	4.21
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR ASSIGN*	95.28	91.86	91.95	4.21
Adult[MeSH Terms] OR PLACEBO* OR ASSIGN*	95.28	91.61	91.70	4.31
Adult[MeSH Terms] OR BLIND* OR ASSIGN*	95.28	91.61	91.70	4.31
TRIAL* OR Young Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	95.28	91.56	91.65	4.33
Adult[MeSH Terms] OR BASELINE OR ASSIGN*	95.28	91.56	91.65	4.33
TRIAL* OR Young Adult[MeSH Terms] OR INTERVENT*	95.28	91.43	91.53	4.38
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR BASELINE	95.28	90.75	90.87	4.64
TRIAL* OR YOUNG OR INTERVENT*[Title/Abstract]	95.28	90.65	90.77	4.68
Adult[MeSH Terms] OR DOUBLE OR BASELINE	95.28	90.60	90.72	4.70
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR ASSIGN*	95.28	90.53	90.65	4.73
TRIAL* OR YOUNG OR INTERVENT*	95.28	90.53	90.65	4.73
Adult[MeSH Terms] OR DOUBLE OR ASSIGN*	95.28	90.37	90.50	4.79
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR INTERVENT*[Title/Abstract]	95.28	90.35	90.48	4.80
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR INTERVENT*	95.28	90.25	90.38	4.84
TRIAL* OR Young Adult[MeSH Terms] OR OUTCOME*	95.28	90.05	90.18	4.92
Adult[MeSH Terms] OR PLACEBO* OR SCORE*	95.28	89.95	90.09	4.96
Adult[MeSH Terms] OR BLIND* OR OUTCOME*[Title/Abstract]	95.28	89.92	90.06	4.97
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR SUPPLE*[Title/Abstract]	95.28	89.85	89.99	5.00
Adult[MeSH Terms] OR BASELINE OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	95.28	89.72	89.87	5.05
TRIAL* OR Middle Aged[MeSH Terms] OR SCORE*	95.28	89.14	89.30	5.28
TRIAL* OR SCORE* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	95.28	89.14	89.30	5.28
TRIAL* OR YOUNG OR OUTCOME*	95.28	89.09	89.25	5.30

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR OUTCOME*[Title/Abstract]	95.28	88.84	89.01	5.40
TRIAL* OR Middle Aged[MeSH Terms] OR RANDOM*[Title/Abstract]	95.28	88.77	88.94	5.43
Adult[MeSH Terms] OR DOUBLE OR OUTCOME*[Title/Abstract]	95.28	88.69	88.86	5.46
TRIAL* OR YEAR*[Title/Abstract] OR SCORE*	95.28	88.59	88.76	5.50
TRIAL* OR YEAR* OR SCORE*	95.28	88.51	88.69	5.52
TRIAL* OR Middle Aged[MeSH Terms] OR OUTCOME*	95.28	88.36	88.54	5.58
Adult[MeSH Terms] OR BLIND* OR YEAR*[Title/Abstract]	95.28	88.36	88.54	5.58
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR OUTCOME*	95.28	88.36	88.54	5.58
TRIAL* OR Middle Aged[MeSH Terms] OR RANDOM*	95.28	88.34	88.52	5.59
Adult[MeSH Terms] OR BLIND* OR YEAR*	95.28	88.29	88.47	5.61
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	95.28	88.19	88.37	5.65
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR Adult[MeSH Terms] OR INTERVENT*	95.28	88.09	88.27	5.69
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR Aged[MeSH Terms]	95.28	88.06	88.25	5.70
TRIAL* OR SCORE* OR TRIAL*[Title/Abstract] OR MIDDLE	95.28	87.79	87.98	5.81
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	95.28	87.79	87.98	5.81
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR YEAR*[Title/Abstract]	95.28	87.26	87.47	6.02
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR YEAR*	95.28	87.18	87.39	6.05
Adult[MeSH Terms] OR DOUBLE OR YEAR*[Title/Abstract]	95.28	87.11	87.32	6.08
Adult[MeSH Terms] OR DOUBLE OR YEAR*	95.28	87.03	87.25	6.11
TRIAL* OR OUTCOME* OR TRIAL*[Title/Abstract] OR MIDDLE	95.28	87.01	87.22	6.12
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR PARTICIPANT*	94.34	92.31	92.36	4.06
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR Double-Blind Method[MeSH Terms]	94.34	92.21	92.26	4.10
Adult[MeSH Terms] OR BLIND* OR Double-Blind Method[MeSH Terms]	94.34	92.21	92.26	4.10
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR BASELINE	94.34	92.11	92.17	4.14
Adult[MeSH Terms] OR BLIND* OR PARTICIPANT*	94.34	92.06	92.12	4.16
Adult[MeSH Terms] OR ASSIGN* OR PARTICIPANT*	94.34	91.73	91.80	4.29
TRIAL* OR Young Adult[MeSH Terms] OR Aged[MeSH Terms]	94.34	91.68	91.75	4.31
TRIAL* OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract]	94.34	91.40	91.48	4.42
TRIAL* OR Middle Aged[MeSH Terms] OR Aged[MeSH Terms]	94.34	91.13	91.21	4.53
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR Double-Blind Method[MeSH Terms]	94.34	91.10	91.19	4.54
TRIAL* OR Young Adult[MeSH Terms] OR SCORE*	94.34	91.10	91.19	4.54
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR PARTICIPANT*	94.34	90.95	91.04	4.60
Adult[MeSH Terms] OR DOUBLE OR Double-Blind Method[MeSH Terms]	94.34	90.95	91.04	4.60
Adult[MeSH Terms] OR DOUBLE OR PARTICIPANT*	94.34	90.80	90.89	4.66
TRIAL* OR YOUNG OR Aged[MeSH Terms]	94.34	90.70	90.80	4.70
TRIAL* OR YOUNG OR SCORE*	94.34	90.12	90.23	4.93

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	94.34	90.07	90.18	4.95
Adult[MeSH Terms] OR ASSIGN* OR INTERVENT*[Title/Abstract]	94.34	90.05	90.16	4.96
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	94.34	90.00	90.11	4.98
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR SCORE*	94.34	89.97	90.09	4.99
Adult[MeSH Terms] OR BLIND* OR SCORE*	94.34	89.97	90.09	4.99
Adult[MeSH Terms] OR BLIND* OR SCORE*	94.34	89.97	90.09	4.99
Adult[MeSH Terms] OR ASSIGN* OR INTERVENT*	94.34	89.95	90.06	5.00
TRIAL* OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	94.34	89.87	89.99	5.03
Adult[MeSH Terms] OR PLACEBO* OR SUPPLE*[Title/Abstract]	94.34	89.82	89.94	5.05
Adult[MeSH Terms] OR BLIND* OR SUPPLE*[Title/Abstract]	94.34	89.80	89.91	5.06
Adult[MeSH Terms] OR ASSIGN* OR SCORE*	94.34	89.67	89.79	5.11
Adult[MeSH Terms] OR ASSIGN* OR SUPPLE*[Title/Abstract]	94.34	89.47	89.60	5.19
TRIAL* OR YEAR*[Title/Abstract] OR INTERVENT*[Title/Abstract]	94.34	88.92	89.06	5.41
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR SCORE*	94.34	88.87	89.01	5.43
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR SCORE*	94.34	88.87	89.01	5.43
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract]	94.34	88.87	89.01	5.43
TRIAL* OR YEAR*[Title/Abstract] OR INTERVENT*	94.34	88.82	88.96	5.45
TRIAL* OR YEAR* OR INTERVENT*[Title/Abstract]	94.34	88.82	88.96	5.45
Adult[MeSH Terms] OR DOUBLE OR SCORE*	94.34	88.72	88.86	5.49
Adult[MeSH Terms] OR DOUBLE OR SCORE*	94.34	88.72	88.86	5.49
TRIAL* OR YEAR* OR INTERVENT*	94.34	88.72	88.86	5.49
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR SUPPLE*[Title/Abstract]	94.34	88.69	88.84	5.50
Adult[MeSH Terms] OR DOUBLE OR SUPPLE*[Title/Abstract]	94.34	88.54	88.69	5.56
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR Adult[MeSH Terms] OR SCORE*	94.34	87.81	87.98	5.85
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	94.34	87.51	87.69	5.97
Adult[MeSH Terms] OR BLIND* OR Young Adult[MeSH Terms]	93.40	92.26	92.29	4.11
Adult[MeSH Terms] OR BLIND* OR Aged[MeSH Terms]	93.40	92.26	92.29	4.11
Adult[MeSH Terms] OR BASELINE OR PARTICIPANT*	93.40	91.98	92.02	4.22
Adult[MeSH Terms] OR BLIND* OR YOUNG	93.40	91.23	91.29	4.53
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR Young Adult[MeSH Terms]	93.40	91.15	91.21	4.56
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR Aged[MeSH Terms]	93.40	91.15	91.21	4.56
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR DOUBLE	93.40	91.00	91.06	4.62
Adult[MeSH Terms] OR DOUBLE OR Young Adult[MeSH Terms]	93.40	91.00	91.06	4.62
Adult[MeSH Terms] OR DOUBLE OR Aged[MeSH Terms]	93.40	91.00	91.06	4.62
Adult[MeSH Terms] OR BLIND* OR DOUBLE[Title/Abstract]	93.40	90.88	90.94	4.67
TRIAL* OR INTERVENT*[Title/Abstract] OR SCORE*	93.40	90.78	90.84	4.71
Adult[MeSH Terms] OR BLIND* OR DOUBLE	93.40	90.73	90.80	4.73

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR INTERVENT* OR SCORE*	93.40	90.68	90.75	4.75
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR INTERVENT*[Title/Abstract]	93.40	90.60	90.67	4.78
TRIAL* OR YEAR*[Title/Abstract] OR YEAR*	93.40	90.58	90.65	4.79
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR INTERVENT*	93.40	90.50	90.58	4.82
RANDOM* OR Middle Aged[MeSH Terms] OR RANDOM*[Title/Abstract]	93.40	90.35	90.43	4.88
Adult[MeSH Terms] OR BLIND* OR INTERVENT*[Title/Abstract]	93.40	90.32	90.40	4.89
Adult[MeSH Terms] OR BLIND* OR INTERVENT*[Title/Abstract]	93.40	90.32	90.40	4.89
Adult[MeSH Terms] OR BASELINE OR INTERVENT*[Title/Abstract]	93.40	90.27	90.35	4.91
Adult[MeSH Terms] OR BLIND* OR INTERVENT*	93.40	90.22	90.31	4.93
Adult[MeSH Terms] OR BLIND* OR INTERVENT*	93.40	90.22	90.31	4.93
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR SCORE*	93.40	90.22	90.31	4.93
Adult[MeSH Terms] OR BASELINE OR INTERVENT*	93.40	90.17	90.26	4.95
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR YOUNG	93.40	90.12	90.21	4.97
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR SUPPLE*[Title/Abstract]	93.40	90.07	90.16	4.99
Adult[MeSH Terms] OR DOUBLE OR YOUNG	93.40	89.97	90.06	5.03
Adult[MeSH Terms] OR BASELINE OR SCORE*	93.40	89.90	89.99	5.06
TRIAL* OR INTERVENT*[Title/Abstract] OR OUTCOME*	93.40	89.77	89.87	5.11
Adult[MeSH Terms] OR BASELINE OR SUPPLE*[Title/Abstract]	93.40	89.72	89.82	5.13
TRIAL* OR INTERVENT* OR OUTCOME*	93.40	89.65	89.74	5.16
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract]	93.40	89.52	89.62	5.21
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR INTERVENT*[Title/Abstract]	93.40	89.24	89.35	5.32
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR INTERVENT*[Title/Abstract]	93.40	89.24	89.35	5.32
TRIAL* OR SCORE* OR OUTCOME*	93.40	89.24	89.35	5.32
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR INTERVENT*	93.40	89.14	89.25	5.36
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR INTERVENT*	93.40	89.14	89.25	5.36
Adult[MeSH Terms] OR DOUBLE OR INTERVENT*[Title/Abstract]	93.40	89.09	89.20	5.38
Adult[MeSH Terms] OR DOUBLE OR INTERVENT*[Title/Abstract]	93.40	89.09	89.20	5.38
Adult[MeSH Terms] OR DOUBLE OR INTERVENT*	93.40	88.99	89.11	5.42
Adult[MeSH Terms] OR DOUBLE OR INTERVENT*	93.40	88.99	89.11	5.42
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	93.40	88.16	88.30	5.76
TRIAL* OR Young Adult[MeSH Terms] OR YOUNG	92.45	92.54	92.53	4.03
Adult[MeSH Terms] OR PARTICIPANT* OR Adult[MeSH Terms] OR SCORE*	92.45	90.07	90.13	5.03
Adult[MeSH Terms] OR INTERVENT*[Title/Abstract] OR SCORE*	92.45	88.39	88.49	5.71
Adult[MeSH Terms] OR INTERVENT* OR SCORE*	92.45	88.29	88.40	5.76
Adult[MeSH Terms] OR INTERVENT*[Title/Abstract] OR SUPPLE*[Title/Abstract]	92.45	88.24	88.35	5.78
Adult[MeSH Terms] OR INTERVENT* OR SUPPLE*[Title/Abstract]	92.45	88.14	88.25	5.82
Adult[MeSH Terms] OR PARTICIPANT* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	91.51	90.45	90.48	4.92
Adult[MeSH Terms] OR PARTICIPANT* OR Adult[MeSH Terms] OR INTERVENT*	91.51	90.35	90.38	4.96
Adult[MeSH Terms] OR PARTICIPANT* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	91.51	89.92	89.96	5.13

Three/four-term search combinations	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR SCORE* OR SUPPLE*[Title/Abstract]	91.51	87.91	88.00	5.96
TRIAL* OR INTERVENT*[Title/Abstract] OR TRIAL*[Title/Abstract]	90.57	93.24	93.17	3.80
TRIAL* OR INTERVENT*[Title/Abstract] OR INTERVENT*	90.57	93.11	93.05	3.85
TRIAL* OR INTERVENT* OR TRIAL*[Title/Abstract]	90.57	93.11	93.05	3.85
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR MIDDLE	90.57	90.90	90.89	4.77
Adult[MeSH Terms] OR INTERVENT*[Title/Abstract] OR INTERVENT*	90.57	90.55	90.55	4.92

Appendix 11

Three/four-term search combinations sorted by specificity (highest to lowest)

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR INTERVENT*[Title/Abstract] OR TRIAL*[Title/Abstract]	90.57	93.24	93.17	3.80
TRIAL* OR INTERVENT*[Title/Abstract] OR INTERVENT*	90.57	93.11	93.05	3.85
TRIAL* OR INTERVENT* OR TRIAL*[Title/Abstract]	90.57	93.11	93.05	3.85
TRIAL* OR Young Adult[MeSH Terms] OR YOUNG	92.45	92.54	92.53	4.03
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR PARTICIPANT*	94.34	92.31	92.36	4.06
Adult[MeSH Terms] OR BLIND* OR Young Adult[MeSH Terms]	93.40	92.26	92.29	4.11
Adult[MeSH Terms] OR BLIND* OR Aged[MeSH Terms]	93.40	92.26	92.29	4.11
Adult[MeSH Terms] OR PLACEBO* OR Double-Blind Method[MeSH Terms]	95.28	92.23	92.31	4.06
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR Double-Blind Method[MeSH Terms]	94.34	92.21	92.26	4.10
Adult[MeSH Terms] OR BLIND* OR Double-Blind Method[MeSH Terms]	94.34	92.21	92.26	4.10
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR BASELINE	94.34	92.11	92.17	4.14
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR PARTICIPANT*	96.23	92.08	92.19	4.09
Adult[MeSH Terms] OR PLACEBO* OR PARTICIPANT*	95.28	92.08	92.17	4.12
Adult[MeSH Terms] OR BLIND* OR PARTICIPANT*	94.34	92.06	92.12	4.16
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR BLIND*	96.23	91.98	92.09	4.13
Adult[MeSH Terms] OR BASELINE OR PARTICIPANT*	93.40	91.98	92.02	4.22
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR PLACEBO*	96.23	91.96	92.07	4.14
Adult[MeSH Terms] OR PLACEBO* OR BLIND*	96.23	91.96	92.07	4.14
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR BASELINE	95.28	91.91	92.00	4.19
Adult[MeSH Terms] OR PLACEBO* OR BASELINE	95.28	91.86	91.95	4.21
Adult[MeSH Terms] OR BLIND* OR BASELINE	95.28	91.86	91.95	4.21
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR ASSIGN*	95.28	91.86	91.95	4.21
Adult[MeSH Terms] OR ASSIGN* OR PARTICIPANT*	94.34	91.73	91.80	4.29
TRIAL* OR Young Adult[MeSH Terms] OR Aged[MeSH Terms]	94.34	91.68	91.75	4.31
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ASSIGN*	96.23	91.63	91.75	4.26
Adult[MeSH Terms] OR PLACEBO* OR ASSIGN*	95.28	91.61	91.70	4.31
Adult[MeSH Terms] OR BLIND* OR ASSIGN*	95.28	91.61	91.70	4.31
TRIAL* OR Young Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	95.28	91.56	91.65	4.33
Adult[MeSH Terms] OR BASELINE OR ASSIGN*	95.28	91.56	91.65	4.33
TRIAL* OR Young Adult[MeSH Terms] OR INTERVENT*	95.28	91.43	91.53	4.38
TRIAL* OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract]	94.34	91.40	91.48	4.42
Adult[MeSH Terms] OR BLIND* OR YOUNG	93.40	91.23	91.29	4.53
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR Young Adult[MeSH Terms]	93.40	91.15	91.21	4.56
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR Aged[MeSH Terms]	93.40	91.15	91.21	4.56

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR Middle Aged[MeSH Terms] OR Aged[MeSH Terms]	94.34	91.13	91.21	4.53
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR Double-Blind Method[MeSH Terms]	94.34	91.10	91.19	4.54
TRIAL* OR Young Adult[MeSH Terms] OR SCORE*	94.34	91.10	91.19	4.54
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR DOUBLE	93.40	91.00	91.06	4.62
Adult[MeSH Terms] OR DOUBLE OR Young Adult[MeSH Terms]	93.40	91.00	91.06	4.62
Adult[MeSH Terms] OR DOUBLE OR Aged[MeSH Terms]	93.40	91.00	91.06	4.62
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR PARTICIPANT*	94.34	90.95	91.04	4.60
Adult[MeSH Terms] OR DOUBLE OR Double-Blind Method[MeSH Terms]	94.34	90.95	91.04	4.60
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR MIDDLE	90.57	90.90	90.89	4.77
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR DOUBLE[Title/Abstract]	96.23	90.88	91.02	4.56
Adult[MeSH Terms] OR BLIND* OR DOUBLE[Title/Abstract]	93.40	90.88	90.94	4.67
Adult[MeSH Terms] OR PLACEBO* OR DOUBLE[Title/Abstract]	96.23	90.85	90.99	4.57
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	97.17	90.80	90.97	4.55
Adult[MeSH Terms] OR DOUBLE OR PARTICIPANT*	94.34	90.80	90.89	4.66
TRIAL* OR Middle Aged[MeSH Terms] OR Young Adult[MeSH Terms]	96.23	90.78	90.92	4.60
TRIAL* OR Young Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	96.23	90.78	90.92	4.60
TRIAL* OR INTERVENT*[Title/Abstract] OR SCORE*	93.40	90.78	90.84	4.71
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR Double-Blind Method[MeSH Terms]	98.11	90.75	90.94	4.54
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.75	90.94	4.54
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR BASELINE	95.28	90.75	90.87	4.64
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR DOUBLE	96.23	90.73	90.87	4.62
Adult[MeSH Terms] OR BLIND* OR DOUBLE	93.40	90.73	90.80	4.73
Adult[MeSH Terms] OR PLACEBO* OR DOUBLE	96.23	90.70	90.84	4.63
TRIAL* OR YOUNG OR Aged[MeSH Terms]	94.34	90.70	90.80	4.70
TRIAL* OR INTERVENT* OR SCORE*	93.40	90.68	90.75	4.75
TRIAL* OR YOUNG OR INTERVENT*[Title/Abstract]	95.28	90.65	90.77	4.68
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR PARTICIPANT*	97.17	90.63	90.80	4.62
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	97.17	90.63	90.80	4.62
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type]	98.11	90.60	90.80	4.60
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.60	90.80	4.60
Adult[MeSH Terms] OR DOUBLE OR BASELINE	95.28	90.60	90.72	4.70
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR INTERVENT*[Title/Abstract]	93.40	90.60	90.67	4.78
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR PLACEBO*	98.11	90.58	90.77	4.61
Adult[MeSH Terms] OR PLACEBO* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.58	90.77	4.61
TRIAL* OR YEAR*[Title/Abstract] OR YEAR*	93.40	90.58	90.65	4.79
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR BLIND*	97.17	90.55	90.72	4.65

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR BLIND* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	97.17	90.55	90.72	4.65
Adult[MeSH Terms] OR INTERVENT*[Title/Abstract] OR INTERVENT*	90.57	90.55	90.55	4.92
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR ASSIGN*	95.28	90.53	90.65	4.73
TRIAL* OR YOUNG OR INTERVENT*	95.28	90.53	90.65	4.73
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR INTERVENT*	93.40	90.50	90.58	4.82
Adult[MeSH Terms] OR PARTICIPANT* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	91.51	90.45	90.48	4.92
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR BASELINE	98.11	90.42	90.62	4.66
Adult[MeSH Terms] OR BASELINE OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.42	90.62	4.66
Adult[MeSH Terms] OR DOUBLE OR ASSIGN*	95.28	90.37	90.50	4.79
Adult[MeSH Terms] OR PLACEBO* OR INTERVENT*[Title/Abstract]	96.23	90.35	90.50	4.76
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR INTERVENT*[Title/Abstract]	95.28	90.35	90.48	4.80
RANDOM* OR Middle Aged[MeSH Terms] OR RANDOM*[Title/Abstract]	93.40	90.35	90.43	4.88
Adult[MeSH Terms] OR PARTICIPANT* OR Adult[MeSH Terms] OR INTERVENT*	91.51	90.35	90.38	4.96
Adult[MeSH Terms] OR BLIND* OR INTERVENT*[Title/Abstract]	93.40	90.32	90.40	4.89
Adult[MeSH Terms] OR BLIND* OR INTERVENT*[Title/Abstract]	93.40	90.32	90.40	4.89
Adult[MeSH Terms] OR BASELINE OR INTERVENT*[Title/Abstract]	93.40	90.27	90.35	4.91
Adult[MeSH Terms] OR PLACEBO* OR INTERVENT*	96.23	90.25	90.40	4.80
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR INTERVENT*	95.28	90.25	90.38	4.84
Adult[MeSH Terms] OR BLIND* OR INTERVENT*	93.40	90.22	90.31	4.93
Adult[MeSH Terms] OR BLIND* OR INTERVENT*	93.40	90.22	90.31	4.93
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR SCORE*	93.40	90.22	90.31	4.93
Adult[MeSH Terms] OR BASELINE OR INTERVENT*	93.40	90.17	90.26	4.95
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR ASSIGN*	98.11	90.15	90.35	4.77
Adult[MeSH Terms] OR ASSIGN* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.15	90.35	4.77
TRIAL* OR YOUNG OR SCORE*	94.34	90.12	90.23	4.93
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR YOUNG	93.40	90.12	90.21	4.97
Adult[MeSH Terms] OR TRIAL* OR TRIAL*[Title/Abstract]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR RANDOMIZED CONTROLLED TRIAL[Publication Type]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR Young Adult[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR Double-Blind Method[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR Young Adult[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	90.07	90.28	4.80

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR Young Adult[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR Aged[MeSH Terms]	98.11	90.07	90.28	4.80
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	98.11	90.07	90.28	4.80
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	94.34	90.07	90.18	4.95
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR SUPPLE*[Title/Abstract]	93.40	90.07	90.16	4.99
Adult[MeSH Terms] OR PARTICIPANT* OR Adult[MeSH Terms] OR SCORE*	92.45	90.07	90.13	5.03
TRIAL* OR Young Adult[MeSH Terms] OR OUTCOME*	95.28	90.05	90.18	4.92
Adult[MeSH Terms] OR ASSIGN* OR INTERVENT*[Title/Abstract]	94.34	90.05	90.16	4.96
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	94.34	90.00	90.11	4.98
Adult[MeSH Terms] OR PLACEBO* OR OUTCOME*[Title/Abstract]	96.23	89.97	90.13	4.91
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR SCORE*	94.34	89.97	90.09	4.99
Adult[MeSH Terms] OR BLIND* OR SCORE*	94.34	89.97	90.09	4.99
Adult[MeSH Terms] OR BLIND* OR SCORE*	94.34	89.97	90.09	4.99
Adult[MeSH Terms] OR DOUBLE OR YOUNG	93.40	89.97	90.06	5.03
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR OUTCOME*[Title/Abstract]	96.23	89.95	90.11	4.92
Adult[MeSH Terms] OR PLACEBO* OR SCORE*	95.28	89.95	90.09	4.96
Adult[MeSH Terms] OR ASSIGN* OR INTERVENT*	94.34	89.95	90.06	5.00
Adult[MeSH Terms] OR BLIND* OR OUTCOME*[Title/Abstract]	95.28	89.92	90.06	4.97
Adult[MeSH Terms] OR PARTICIPANT* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	91.51	89.92	89.96	5.13
Adult[MeSH Terms] OR TRIAL* OR PARTICIPANT*	98.11	89.90	90.11	4.87
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	89.90	90.11	4.87
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	89.90	90.11	4.87
Adult[MeSH Terms] OR BASELINE OR SCORE*	93.40	89.90	89.99	5.06
Adult[MeSH Terms] OR TRIAL* OR PLACEBO*	98.11	89.87	90.09	4.88
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	89.87	90.09	4.88
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR Young Adult[MeSH Terms]	98.11	89.87	90.09	4.88
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR Aged[MeSH Terms]	98.11	89.87	90.09	4.88
Adult[MeSH Terms] OR PARTICIPANT* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	89.87	90.04	4.95
TRIAL* OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	94.34	89.87	89.99	5.03
Adult[MeSH Terms] OR TRIAL* OR BLIND*	98.11	89.85	90.06	4.88
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR BLIND*	98.11	89.85	90.06	4.88

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL*[Title/Abstract] OR ADULT* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	89.85	90.04	4.92
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR SUPPLE*[Title/Abstract]	95.28	89.85	89.99	5.00
Adult[MeSH Terms] OR PLACEBO* OR SUPPLE*[Title/Abstract]	94.34	89.82	89.94	5.05
TRIAL* OR Middle Aged[MeSH Terms] OR YOUNG	96.23	89.80	89.96	4.98
TRIAL* OR YOUNG OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	96.23	89.80	89.96	4.98
Adult[MeSH Terms] OR BLIND* OR SUPPLE*[Title/Abstract]	94.34	89.80	89.91	5.06
Adult[MeSH Terms] OR BLIND* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	89.77	89.94	4.99
TRIAL* OR INTERVENT*[Title/Abstract] OR OUTCOME*	93.40	89.77	89.87	5.11
Adult[MeSH Terms] OR TRIAL* OR BASELINE	98.11	89.75	89.96	4.92
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR BASELINE	98.11	89.75	89.96	4.92
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR BASELINE	98.11	89.75	89.96	4.92
Adult[MeSH Terms] OR PLACEBO* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	89.75	89.91	5.00
Adult[MeSH Terms] OR BASELINE OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	95.28	89.72	89.87	5.05
Adult[MeSH Terms] OR BASELINE OR SUPPLE*[Title/Abstract]	93.40	89.72	89.82	5.13
Adult[MeSH Terms] OR ASSIGN* OR SCORE*	94.34	89.67	89.79	5.11
TRIAL* OR INTERVENT* OR OUTCOME*	93.40	89.65	89.74	5.16
TRIAL* OR Middle Aged[MeSH Terms] OR INTERVENT*[Title/Abstract]	96.23	89.55	89.72	5.08
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.52	89.74	5.01
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract]	93.40	89.52	89.62	5.21
Adult[MeSH Terms] OR ASSIGN* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	89.49	89.67	5.10
TRIAL* OR Middle Aged[MeSH Terms] OR INTERVENT*	96.23	89.47	89.65	5.11
Adult[MeSH Terms] OR ASSIGN* OR SUPPLE*[Title/Abstract]	94.34	89.47	89.60	5.19
Adult[MeSH Terms] OR TRIAL* OR ASSIGN*	99.06	89.42	89.67	5.01
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR ASSIGN*	99.06	89.42	89.67	5.01
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR ASSIGN*	99.06	89.42	89.67	5.01
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.42	89.65	5.05
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR DOUBLE[Title/Abstract]	97.17	89.42	89.62	5.09
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	97.17	89.42	89.62	5.09
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	89.39	89.62	5.06
Adult[MeSH Terms] OR PLACEBO* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.37	89.60	5.07
Adult[MeSH Terms] OR BLIND* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.37	89.60	5.07
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR DOUBLE	97.17	89.29	89.50	5.14

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR DOUBLE OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	97.17	89.29	89.50	5.14
Adult[MeSH Terms] OR BASELINE OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.27	89.50	5.11
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	89.27	89.47	5.15
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR Young Adult[MeSH Terms]	97.17	89.27	89.47	5.15
TRIAL* OR Young Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	89.27	89.47	5.15
TRIAL* OR YEAR*[Title/Abstract] OR Young Adult[MeSH Terms]	97.17	89.24	89.45	5.16
TRIAL* OR Young Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	96.23	89.24	89.42	5.20
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR INTERVENT*[Title/Abstract]	93.40	89.24	89.35	5.32
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR INTERVENT*[Title/Abstract]	93.40	89.24	89.35	5.32
TRIAL* OR SCORE* OR OUTCOME*	93.40	89.24	89.35	5.32
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	89.22	89.45	5.13
Adult[MeSH Terms] OR ASSIGN* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	89.19	89.45	5.10
TRIAL* OR YEAR* OR Young Adult[MeSH Terms]	97.17	89.14	89.35	5.19
TRIAL* OR Middle Aged[MeSH Terms] OR SCORE*	95.28	89.14	89.30	5.28
TRIAL* OR SCORE* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	95.28	89.14	89.30	5.28
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR INTERVENT*	93.40	89.14	89.25	5.36
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR INTERVENT*	93.40	89.14	89.25	5.36
Adult[MeSH Terms] OR TRIAL* OR YOUNG	98.11	89.09	89.33	5.17
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR YOUNG	98.11	89.09	89.33	5.17
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR YOUNG	98.11	89.09	89.33	5.17
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR YOUNG	98.11	89.09	89.33	5.17
Adult[MeSH Terms] OR PARTICIPANT* OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	89.09	89.30	5.21
TRIAL* OR YOUNG OR OUTCOME*	95.28	89.09	89.25	5.30
Adult[MeSH Terms] OR DOUBLE OR INTERVENT*[Title/Abstract]	93.40	89.09	89.20	5.38
Adult[MeSH Terms] OR DOUBLE OR INTERVENT*[Title/Abstract]	93.40	89.09	89.20	5.38
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	89.07	89.30	5.18
Adult[MeSH Terms] OR PLACEBO* OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	89.07	89.30	5.18
Adult[MeSH Terms] OR BLIND* OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	89.02	89.23	5.24
Adult[MeSH Terms] OR DOUBLE OR INTERVENT*	93.40	88.99	89.11	5.42
Adult[MeSH Terms] OR DOUBLE OR INTERVENT*	93.40	88.99	89.11	5.42
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR INTERVENT*[Title/Abstract]	97.17	88.94	89.16	5.27
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	97.17	88.94	89.16	5.27
Adult[MeSH Terms] OR BLIND* OR OUTCOME*	96.23	88.94	89.13	5.31
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	88.92	89.16	5.24
TRIAL* OR YEAR*[Title/Abstract] OR INTERVENT*[Title/Abstract]	94.34	88.92	89.06	5.41

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	88.89	89.13	5.25
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR YOUNG	98.11	88.89	89.13	5.25
Adult[MeSH Terms] OR BASELINE OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	88.89	89.13	5.25
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR INTERVENT*	97.17	88.87	89.08	5.30
TRIAL*[Title/Abstract] OR ADULT* OR Middle Aged[MeSH Terms]	97.17	88.87	89.08	5.30
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	97.17	88.87	89.08	5.30
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR SCORE*	94.34	88.87	89.01	5.43
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR SCORE*	94.34	88.87	89.01	5.43
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract]	94.34	88.87	89.01	5.43
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	98.11	88.84	89.08	5.27
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR OUTCOME*[Title/Abstract]	95.28	88.84	89.01	5.40
TRIAL* OR YEAR*[Title/Abstract] OR INTERVENT*	94.34	88.82	88.96	5.45
TRIAL* OR YEAR* OR INTERVENT*[Title/Abstract]	94.34	88.82	88.96	5.45
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR BASELINE	98.11	88.77	89.01	5.30
TRIAL* OR Middle Aged[MeSH Terms] OR RANDOM*[Title/Abstract]	95.28	88.77	88.94	5.43
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR OUTCOME*[Title/Abstract]	98.11	88.72	88.96	5.32
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	88.72	88.96	5.32
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	88.72	88.91	5.40
Adult[MeSH Terms] OR DOUBLE OR SCORE*	94.34	88.72	88.86	5.49
Adult[MeSH Terms] OR DOUBLE OR SCORE*	94.34	88.72	88.86	5.49
TRIAL* OR YEAR* OR INTERVENT*	94.34	88.72	88.86	5.49
Adult[MeSH Terms] OR TRIAL* OR DOUBLE[Title/Abstract]	98.11	88.69	88.94	5.33
Adult[MeSH Terms] OR PLACEBO* OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	88.69	88.94	5.33
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR DOUBLE[Title/Abstract]	98.11	88.69	88.94	5.33
Adult[MeSH Terms] OR BLIND* OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	88.69	88.94	5.33
Adult[MeSH Terms] OR DOUBLE OR OUTCOME*[Title/Abstract]	95.28	88.69	88.86	5.46
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR SUPPLE*[Title/Abstract]	94.34	88.69	88.84	5.50
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR ADULT*	97.17	88.64	88.86	5.39
Adult[MeSH Terms] OR ASSIGN* OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	88.62	88.86	5.36
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	98.11	88.59	88.84	5.37
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR BASELINE	98.11	88.59	88.84	5.37
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	88.59	88.84	5.37
TRIAL* OR YEAR*[Title/Abstract] OR SCORE*	95.28	88.59	88.76	5.50
Adult[MeSH Terms] OR TRIAL* OR DOUBLE	98.11	88.56	88.81	5.38
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR DOUBLE	98.11	88.56	88.81	5.38
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR SCORE*	97.17	88.56	88.79	5.42

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	97.17	88.56	88.79	5.42
Adult[MeSH Terms] OR DOUBLE OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	88.56	88.76	5.46
Adult[MeSH Terms] OR TRIAL* OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	88.54	88.79	5.38
Adult[MeSH Terms] OR DOUBLE OR SUPPLE*[Title/Abstract]	94.34	88.54	88.69	5.56
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR ASSIGN*	99.06	88.51	88.79	5.35
TRIAL* OR YEAR*[Title/Abstract] OR Aged[MeSH Terms]	98.11	88.51	88.76	5.39
TRIAL* OR YEAR* OR SCORE*	95.28	88.51	88.69	5.52
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR YOUNG	97.17	88.49	88.71	5.45
TRIAL* OR YOUNG OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	88.49	88.71	5.45
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR PARTICIPANT*	97.17	88.46	88.69	5.46
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR ASSIGN*	99.06	88.44	88.71	5.38
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	88.44	88.69	5.42
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type]	98.11	88.44	88.69	5.42
TRIAL* OR YEAR* OR Aged[MeSH Terms]	98.11	88.44	88.69	5.42
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR PLACEBO*	98.11	88.41	88.67	5.43
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR SUPPLE*[Title/Abstract]	97.17	88.39	88.62	5.49
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR BLIND*	97.17	88.39	88.62	5.49
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	97.17	88.39	88.62	5.49
TRIAL* OR YOUNG OR TRIAL*[Title/Abstract] OR MIDDLE	96.23	88.39	88.59	5.53
Adult[MeSH Terms] OR INTERVENT*[Title/Abstract] OR SCORE*	92.45	88.39	88.49	5.71
TRIAL* OR Middle Aged[MeSH Terms] OR OUTCOME*	95.28	88.36	88.54	5.58
Adult[MeSH Terms] OR BLIND* OR YEAR*[Title/Abstract]	95.28	88.36	88.54	5.58
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR OUTCOME*	95.28	88.36	88.54	5.58
TRIAL* OR Middle Aged[MeSH Terms] OR RANDOM*	95.28	88.34	88.52	5.59
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR Aged[MeSH Terms]	98.11	88.31	88.57	5.47
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR BASELINE	98.11	88.29	88.54	5.48
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	88.29	88.54	5.48
TRIAL* OR YEAR*[Title/Abstract] OR YOUNG	97.17	88.29	88.52	5.52
Adult[MeSH Terms] OR BLIND* OR YEAR*	95.28	88.29	88.47	5.61
Adult[MeSH Terms] OR INTERVENT* OR SCORE*	92.45	88.29	88.40	5.76
Adult[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR INTERVENT*[Title/Abstract] OR SUPPLE*[Title/Abstract]	92.45	88.24	88.35	5.78
TRIAL* OR YEAR* OR YOUNG	97.17	88.19	88.42	5.56
TRIAL* OR Young Adult[MeSH Terms] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	96.23	88.19	88.40	5.61
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	95.28	88.19	88.37	5.65
Adult[MeSH Terms] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
Adult[MeSH Terms] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	98.11	88.16	88.42	5.53
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	98.11	88.16	88.42	5.53
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms] OR INTERVENT*	98.11	88.16	88.42	5.53
TRIAL* OR INTERVENT* OR Adult[MeSH Terms]	98.11	88.16	88.42	5.53
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	93.40	88.16	88.30	5.76
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	88.14	88.40	5.54
Adult[MeSH Terms] OR DOUBLE OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	88.14	88.40	5.54
Adult[MeSH Terms] OR INTERVENT* OR SUPPLE*[Title/Abstract]	92.45	88.14	88.25	5.82
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR Adult[MeSH Terms] OR INTERVENT*	95.28	88.09	88.27	5.69
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	88.06	88.32	5.57
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR ASSIGN*	98.11	88.06	88.32	5.57
TRIAL* OR Middle Aged[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	88.06	88.32	5.57
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	88.06	88.32	5.57
TRIAL* OR INTERVENT*[Title/Abstract] OR TRIAL*[Title/Abstract] OR MIDDLE	96.23	88.06	88.27	5.66
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR Aged[MeSH Terms]	95.28	88.06	88.25	5.70
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.04	88.30	5.58
Adult[MeSH Terms] OR TRIAL* OR OUTCOME*[Title/Abstract]	98.11	87.99	88.25	5.60
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	98.11	87.99	88.25	5.60
TRIAL* OR INTERVENT* OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	87.99	88.25	5.60
TRIAL* OR INTERVENT* OR TRIAL*[Title/Abstract] OR MIDDLE	96.23	87.99	88.20	5.69
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR INTERVENT*	98.11	87.96	88.23	5.61
Adult[MeSH Terms] OR BASELINE OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	87.94	88.20	5.62

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	87.94	88.18	5.66
Adult[MeSH Terms] OR TRIAL* OR TRIAL*[Title/Abstract] OR ADULT*	98.11	87.91	88.18	5.63
Adult[MeSH Terms] OR TRIAL* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	87.91	88.18	5.63
Adult[MeSH Terms] OR SCORE* OR SUPPLE*[Title/Abstract]	91.51	87.91	88.00	5.96
Adult[MeSH Terms] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	98.11	87.89	88.15	5.63
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
TRIAL* OR SCORE* OR Adult[MeSH Terms]	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR BASELINE OR TRIAL* OR INTERVENT*	98.11	87.86	88.13	5.64
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR OUTCOME*	96.23	87.86	88.08	5.74
Adult[MeSH Terms] OR DOUBLE OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	87.81	88.05	5.71
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR Adult[MeSH Terms] OR SCORE*	94.34	87.81	87.98	5.85
TRIAL* OR SCORE* OR TRIAL*[Title/Abstract] OR MIDDLE	95.28	87.79	87.98	5.81
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	95.28	87.79	87.98	5.81
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR Young Adult[MeSH Terms]	96.23	87.76	87.98	5.77
Adult[MeSH Terms] OR TRIAL* OR SUPPLE*[Title/Abstract]	98.11	87.74	88.00	5.69
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	87.74	88.00	5.69
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	87.74	88.00	5.69
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	87.74	88.00	5.69
TRIAL* OR SCORE* OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	87.71	87.98	5.70
Adult[MeSH Terms] OR DOUBLE OR OUTCOME*	96.23	87.71	87.93	5.79
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR SCORE*	98.11	87.69	87.96	5.71
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR INTERVENT*[Title/Abstract]	99.06	87.64	87.93	5.69
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	98.11	87.64	87.91	5.73
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	87.61	87.88	5.74
Adult[MeSH Terms] OR BASELINE OR TRIAL* OR SCORE*	98.11	87.58	87.86	5.75
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR INTERVENT*	99.06	87.56	87.86	5.71
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	87.53	87.81	5.77
TRIAL* OR Middle Aged[MeSH Terms] OR YEAR*[Title/Abstract]	99.06	87.51	87.81	5.73
TRIAL* OR YEAR*[Title/Abstract] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	87.51	87.81	5.73

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	87.51	87.78	5.78
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	94.34	87.51	87.69	5.97
Adult[MeSH Terms] OR TRIAL* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	87.48	87.76	5.79
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	98.11	87.48	87.76	5.79
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR INTERVENT*[Title/Abstract]	97.17	87.48	87.74	5.83
TRIAL* OR INTERVENT*[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	87.48	87.74	5.83
Adult[MeSH Terms] OR DOUBLE OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	87.46	87.74	5.80
TRIAL*[Title/Abstract] OR MIDDLE OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	97.17	87.46	87.71	5.84
TRIAL* OR YEAR*[Title/Abstract] OR OUTCOME*	96.23	87.46	87.69	5.89
TRIAL* OR Middle Aged[MeSH Terms] OR YEAR*	99.06	87.43	87.74	5.76
TRIAL* OR YEAR* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	87.43	87.74	5.76
TRIAL*[Title/Abstract] OR ADULT* OR MIDDLE	97.17	87.41	87.66	5.86
TRIAL*[Title/Abstract] OR MIDDLE OR Adult[MeSH Terms] OR INTERVENT*	97.17	87.38	87.64	5.87
TRIAL* OR YEAR* OR OUTCOME*	96.23	87.38	87.61	5.92
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR INTERVENT*	97.17	87.36	87.61	5.88
TRIAL* OR INTERVENT* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	87.36	87.61	5.88
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	87.33	87.61	5.85
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR DOUBLE[Title/Abstract]	97.17	87.31	87.56	5.90
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR SCORE*	99.06	87.28	87.59	5.82
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR INTERVENT*	98.11	87.26	87.54	5.88
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR YEAR*[Title/Abstract]	95.28	87.26	87.47	6.02
TRIAL* OR YOUNG OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	96.23	87.23	87.47	5.98
Adult[MeSH Terms] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85
TRIAL*[Title/Abstract] OR MIDDLE OR Adult[MeSH Terms] OR SCORE*	97.17	87.21	87.47	5.94
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	87.18	87.47	5.90
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR DOUBLE	97.17	87.18	87.44	5.95
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR YEAR*	95.28	87.18	87.39	6.05
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	87.13	87.42	5.92
Adult[MeSH Terms] OR DOUBLE OR YEAR*[Title/Abstract]	95.28	87.11	87.32	6.08
Adult[MeSH Terms] OR TRIAL* OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	87.06	87.34	5.95
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	87.06	87.34	5.95
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR OUTCOME*	99.06	87.03	87.34	5.91

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR PARTICIPANT* OR TRIAL* OR OUTCOME*	99.06	87.03	87.34	5.91
Adult[MeSH Terms] OR DOUBLE OR YEAR*	95.28	87.03	87.25	6.11
RANDOM* OR Middle Aged[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	87.01	87.29	5.97
TRIAL* OR OUTCOME* OR TRIAL*[Title/Abstract] OR MIDDLE	95.28	87.01	87.22	6.12
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	96.23	86.98	87.22	6.08
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	98.11	86.96	87.25	5.99
TRIAL*[Title/Abstract] OR MIDDLE OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	97.17	86.96	87.22	6.04
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR SCORE*	98.11	86.93	87.22	6.00
TRIAL* OR SCORE* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	86.93	87.22	6.00
Adult[MeSH Terms] OR BASELINE OR TRIAL* OR OUTCOME*	99.06	86.91	87.22	5.96
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR SCORE*	98.11	86.91	87.20	6.01
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR INTERVENT*	96.23	86.91	87.15	6.11
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	98.11	86.88	87.17	6.02
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	97.17	86.83	87.10	6.09
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR YOUNG	96.23	86.83	87.07	6.14
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	98.11	86.81	87.10	6.05
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	86.78	87.07	6.06
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR INTERVENT*	97.17	86.76	87.03	6.12
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR SCORE*	96.23	86.71	86.95	6.19
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	98.11	86.58	86.88	6.13
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR OUTCOME*	99.06	86.55	86.88	6.10
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	96.23	86.55	86.81	6.25
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	86.50	86.81	6.16
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR INTERVENT*	96.23	86.48	86.73	6.27
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR SCORE*	97.17	86.45	86.73	6.23
Adult[MeSH Terms] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	99.06	86.38	86.71	6.16
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	97.17	86.38	86.66	6.26
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR SCORE*	96.23	86.35	86.61	6.32
Adult[MeSH Terms] OR TRIAL* OR YEAR*	99.06	86.30	86.63	6.19
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR YEAR*	99.06	86.30	86.63	6.19
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR YEAR*	99.06	86.30	86.63	6.19
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	99.06	86.30	86.63	6.19

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL*[Title/Abstract] OR ADULT* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	86.28	86.59	6.25
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.20	86.54	6.23
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR PARTICIPANT*	99.06	86.20	86.54	6.23
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR OUTCOME*	99.06	86.13	86.46	6.26
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR YEAR*	99.06	86.13	86.46	6.26
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR PARTICIPANT*	99.06	86.13	86.46	6.26
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR TRIAL* OR OUTCOME*	99.06	86.13	86.46	6.26
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms] OR SCORE*	98.11	86.10	86.41	6.32
TRIAL* OR SCORE* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	86.10	86.41	6.32
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR BASELINE	99.06	86.05	86.39	6.29
TRIAL* OR YEAR*[Title/Abstract] OR TRIAL*[Title/Abstract] OR MIDDLE	99.06	86.05	86.39	6.29
TRIAL* OR INTERVENT* OR Adult[MeSH Terms] OR SCORE*	98.11	86.03	86.34	6.35
TRIAL* OR SCORE* OR Adult[MeSH Terms] OR INTERVENT*	98.11	86.03	86.34	6.35
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR BASELINE	99.06	85.98	86.32	6.31
TRIAL* OR YEAR* OR TRIAL*[Title/Abstract] OR MIDDLE	99.06	85.98	86.32	6.31
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	85.93	86.24	6.38
TRIAL* OR INTERVENT* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	85.85	86.17	6.41
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR OUTCOME*	96.23	85.85	86.12	6.52
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR ASSIGN*	100.00	85.73	86.10	6.36
TRIAL*[Title/Abstract] OR ADULT* OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	85.70	86.02	6.47
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR ASSIGN*	100.00	85.67	86.05	6.38
TRIAL* OR SCORE* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	85.65	85.97	6.49
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	99.06	85.52	85.88	6.49
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR YEAR*[Title/Abstract]	99.06	85.50	85.85	6.50
TRIAL* OR YEAR*[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	99.06	85.50	85.85	6.50
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR INTERVENT*	99.06	85.45	85.80	6.51
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR OUTCOME*	96.23	85.45	85.73	6.68
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR YEAR*	99.06	85.42	85.78	6.52
TRIAL* OR YEAR* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	99.06	85.42	85.78	6.52
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR SCORE*	99.06	85.10	85.46	6.65
TRIAL* OR YEAR*[Title/Abstract] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	85.05	85.41	6.67
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	85.00	85.36	6.69
TRIAL* OR YEAR* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	84.97	85.34	6.70
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	99.06	84.77	85.14	6.77
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR INTERVENT*	99.06	84.69	85.07	6.80
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	99.06	84.69	85.07	6.80
TRIAL* OR YEAR*[Title/Abstract] OR RANDOM* OR Middle Aged[MeSH Terms]	99.06	84.64	85.02	6.82
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR INTERVENT*	99.06	84.62	84.99	6.83

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR YEAR* OR RANDOM* OR Middle Aged[MeSH Terms]	99.06	84.57	84.94	6.85
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SCORE*	99.06	84.47	84.85	6.89
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02

Appendix 12

Three/four-term search combinations sorted by accuracy (highest to lowest)

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
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TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
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TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
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TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
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TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
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TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
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TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
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Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
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TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
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TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
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TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
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TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
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TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91

Appendix 13

Three/four-term search combinations sorted by NNR (lowest to highest)

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR INTERVENT*[Title/Abstract] OR TRIAL*[Title/Abstract]	90.57	93.24	93.17	3.80
TRIAL* OR INTERVENT*[Title/Abstract] OR INTERVENT*	90.57	93.11	93.05	3.85
TRIAL* OR INTERVENT* OR TRIAL*[Title/Abstract]	90.57	93.11	93.05	3.85
TRIAL* OR Young Adult[MeSH Terms] OR YOUNG	92.45	92.54	92.53	4.03
Adult[MeSH Terms] OR PLACEBO* OR Double-Blind Method[MeSH Terms]	95.28	92.23	92.31	4.06
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR PARTICIPANT*	94.34	92.31	92.36	4.06
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR PARTICIPANT*	96.23	92.08	92.19	4.09
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR Double-Blind Method[MeSH Terms]	94.34	92.21	92.26	4.10
Adult[MeSH Terms] OR BLIND* OR Double-Blind Method[MeSH Terms]	94.34	92.21	92.26	4.10
Adult[MeSH Terms] OR BLIND* OR Young Adult[MeSH Terms]	93.40	92.26	92.29	4.11
Adult[MeSH Terms] OR BLIND* OR Aged[MeSH Terms]	93.40	92.26	92.29	4.11
Adult[MeSH Terms] OR PLACEBO* OR PARTICIPANT*	95.28	92.08	92.17	4.12
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR BLIND*	96.23	91.98	92.09	4.13
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR PLACEBO*	96.23	91.96	92.07	4.14
Adult[MeSH Terms] OR PLACEBO* OR BLIND*	96.23	91.96	92.07	4.14
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR BASELINE	94.34	92.11	92.17	4.14
Adult[MeSH Terms] OR BLIND* OR PARTICIPANT*	94.34	92.06	92.12	4.16
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR BASELINE	95.28	91.91	92.00	4.19
Adult[MeSH Terms] OR PLACEBO* OR BASELINE	95.28	91.86	91.95	4.21
Adult[MeSH Terms] OR BLIND* OR BASELINE	95.28	91.86	91.95	4.21
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR ASSIGN*	95.28	91.86	91.95	4.21
Adult[MeSH Terms] OR BASELINE OR PARTICIPANT*	93.40	91.98	92.02	4.22
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ASSIGN*	96.23	91.63	91.75	4.26
Adult[MeSH Terms] OR ASSIGN* OR PARTICIPANT*	94.34	91.73	91.80	4.29
Adult[MeSH Terms] OR PLACEBO* OR ASSIGN*	95.28	91.61	91.70	4.31
Adult[MeSH Terms] OR BLIND* OR ASSIGN*	95.28	91.61	91.70	4.31
TRIAL* OR Young Adult[MeSH Terms] OR Aged[MeSH Terms]	94.34	91.68	91.75	4.31
TRIAL* OR Young Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	95.28	91.56	91.65	4.33
Adult[MeSH Terms] OR BASELINE OR ASSIGN*	95.28	91.56	91.65	4.33
TRIAL* OR Young Adult[MeSH Terms] OR INTERVENT*	95.28	91.43	91.53	4.38
TRIAL* OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract]	94.34	91.40	91.48	4.42
Adult[MeSH Terms] OR BLIND* OR YOUNG	93.40	91.23	91.29	4.53

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR Middle Aged[MeSH Terms] OR Aged[MeSH Terms]	94.34	91.13	91.21	4.53
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR Double-Blind Method[MeSH Terms]	98.11	90.75	90.94	4.54
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.75	90.94	4.54
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR Double-Blind Method[MeSH Terms]	94.34	91.10	91.19	4.54
TRIAL* OR Young Adult[MeSH Terms] OR SCORE*	94.34	91.10	91.19	4.54
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	97.17	90.80	90.97	4.55
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR Young Adult[MeSH Terms]	93.40	91.15	91.21	4.56
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR Aged[MeSH Terms]	93.40	91.15	91.21	4.56
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR DOUBLE[Title/Abstract]	96.23	90.88	91.02	4.56
Adult[MeSH Terms] OR PLACEBO* OR DOUBLE[Title/Abstract]	96.23	90.85	90.99	4.57
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type]	98.11	90.60	90.80	4.60
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.60	90.80	4.60
TRIAL* OR Middle Aged[MeSH Terms] OR Young Adult[MeSH Terms]	96.23	90.78	90.92	4.60
TRIAL* OR Young Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	96.23	90.78	90.92	4.60
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR PARTICIPANT*	94.34	90.95	91.04	4.60
Adult[MeSH Terms] OR DOUBLE OR Double-Blind Method[MeSH Terms]	94.34	90.95	91.04	4.60
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR PLACEBO*	98.11	90.58	90.77	4.61
Adult[MeSH Terms] OR PLACEBO* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.58	90.77	4.61
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR DOUBLE	93.40	91.00	91.06	4.62
Adult[MeSH Terms] OR DOUBLE OR Young Adult[MeSH Terms]	93.40	91.00	91.06	4.62
Adult[MeSH Terms] OR DOUBLE OR Aged[MeSH Terms]	93.40	91.00	91.06	4.62
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR DOUBLE	96.23	90.73	90.87	4.62
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR PARTICIPANT*	97.17	90.63	90.80	4.62
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	97.17	90.63	90.80	4.62
Adult[MeSH Terms] OR PLACEBO* OR DOUBLE	96.23	90.70	90.84	4.63
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR BASELINE	95.28	90.75	90.87	4.64
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR BLIND*	97.17	90.55	90.72	4.65
Adult[MeSH Terms] OR BLIND* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	97.17	90.55	90.72	4.65
Adult[MeSH Terms] OR DOUBLE OR PARTICIPANT*	94.34	90.80	90.89	4.66
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR BASELINE	98.11	90.42	90.62	4.66
Adult[MeSH Terms] OR BASELINE OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.42	90.62	4.66
Adult[MeSH Terms] OR BLIND* OR DOUBLE[Title/Abstract]	93.40	90.88	90.94	4.67
TRIAL* OR YOUNG OR INTERVENT*[Title/Abstract]	95.28	90.65	90.77	4.68
TRIAL* OR YOUNG OR Aged[MeSH Terms]	94.34	90.70	90.80	4.70
Adult[MeSH Terms] OR DOUBLE OR BASELINE	95.28	90.60	90.72	4.70
TRIAL* OR INTERVENT*[Title/Abstract] OR SCORE*	93.40	90.78	90.84	4.71

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR BLIND* OR DOUBLE	93.40	90.73	90.80	4.73
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR ASSIGN*	95.28	90.53	90.65	4.73
TRIAL* OR YOUNG OR INTERVENT*	95.28	90.53	90.65	4.73
TRIAL* OR INTERVENT* OR SCORE*	93.40	90.68	90.75	4.75
Adult[MeSH Terms] OR PLACEBO* OR INTERVENT*[Title/Abstract]	96.23	90.35	90.50	4.76
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR ASSIGN*	98.11	90.15	90.35	4.77
Adult[MeSH Terms] OR ASSIGN* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.15	90.35	4.77
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR MIDDLE	90.57	90.90	90.89	4.77
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR INTERVENT*[Title/Abstract]	93.40	90.60	90.67	4.78
TRIAL* OR YEAR*[Title/Abstract] OR YEAR*	93.40	90.58	90.65	4.79
Adult[MeSH Terms] OR DOUBLE OR ASSIGN*	95.28	90.37	90.50	4.79
Adult[MeSH Terms] OR TRIAL* OR TRIAL*[Title/Abstract]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR RANDOMIZED CONTROLLED TRIAL[Publication Type]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR Young Adult[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR Double-Blind Method[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR Young Adult[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR Young Adult[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR Aged[MeSH Terms]	98.11	90.07	90.28	4.80
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	98.11	90.07	90.28	4.80
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR Aged[MeSH Terms]	98.11	90.07	90.28	4.80
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR INTERVENT*[Title/Abstract]	95.28	90.35	90.48	4.80
Adult[MeSH Terms] OR PLACEBO* OR INTERVENT*	96.23	90.25	90.40	4.80
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR INTERVENT*	93.40	90.50	90.58	4.82
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR INTERVENT*	95.28	90.25	90.38	4.84
Adult[MeSH Terms] OR TRIAL* OR PARTICIPANT*	98.11	89.90	90.11	4.87
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	89.90	90.11	4.87
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	89.90	90.11	4.87
Adult[MeSH Terms] OR TRIAL* OR PLACEBO*	98.11	89.87	90.09	4.88

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	89.87	90.09	4.88
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR Young Adult[MeSH Terms]	98.11	89.87	90.09	4.88
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR Aged[MeSH Terms]	98.11	89.87	90.09	4.88
RANDOM* OR Middle Aged[MeSH Terms] OR RANDOM*[Title/Abstract]	93.40	90.35	90.43	4.88
Adult[MeSH Terms] OR TRIAL* OR BLIND*	98.11	89.85	90.06	4.88
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR BLIND*	98.11	89.85	90.06	4.88
Adult[MeSH Terms] OR BLIND* OR INTERVENT*[Title/Abstract]	93.40	90.32	90.40	4.89
Adult[MeSH Terms] OR BLIND* OR INTERVENT*[Title/Abstract]	93.40	90.32	90.40	4.89
Adult[MeSH Terms] OR BASELINE OR INTERVENT*[Title/Abstract]	93.40	90.27	90.35	4.91
Adult[MeSH Terms] OR PLACEBO* OR OUTCOME*[Title/Abstract]	96.23	89.97	90.13	4.91
Adult[MeSH Terms] OR INTERVENT*[Title/Abstract] OR INTERVENT*	90.57	90.55	90.55	4.92
Adult[MeSH Terms] OR PARTICIPANT* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	91.51	90.45	90.48	4.92
TRIAL* OR Young Adult[MeSH Terms] OR OUTCOME*	95.28	90.05	90.18	4.92
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR OUTCOME*[Title/Abstract]	96.23	89.95	90.11	4.92
TRIAL*[Title/Abstract] OR ADULT* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	89.85	90.04	4.92
Adult[MeSH Terms] OR TRIAL* OR BASELINE	98.11	89.75	89.96	4.92
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR BASELINE	98.11	89.75	89.96	4.92
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR BASELINE	98.11	89.75	89.96	4.92
Adult[MeSH Terms] OR BLIND* OR INTERVENT*	93.40	90.22	90.31	4.93
Adult[MeSH Terms] OR BLIND* OR INTERVENT*	93.40	90.22	90.31	4.93
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR SCORE*	93.40	90.22	90.31	4.93
TRIAL* OR YOUNG OR SCORE*	94.34	90.12	90.23	4.93
Adult[MeSH Terms] OR BASELINE OR INTERVENT*	93.40	90.17	90.26	4.95
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	94.34	90.07	90.18	4.95
Adult[MeSH Terms] OR PARTICIPANT* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	89.87	90.04	4.95
Adult[MeSH Terms] OR PARTICIPANT* OR Adult[MeSH Terms] OR INTERVENT*	91.51	90.35	90.38	4.96
Adult[MeSH Terms] OR ASSIGN* OR INTERVENT*[Title/Abstract]	94.34	90.05	90.16	4.96
Adult[MeSH Terms] OR PLACEBO* OR SCORE*	95.28	89.95	90.09	4.96
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR YOUNG	93.40	90.12	90.21	4.97
Adult[MeSH Terms] OR BLIND* OR OUTCOME*[Title/Abstract]	95.28	89.92	90.06	4.97
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	94.34	90.00	90.11	4.98
TRIAL* OR Middle Aged[MeSH Terms] OR YOUNG	96.23	89.80	89.96	4.98
TRIAL* OR YOUNG OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	96.23	89.80	89.96	4.98
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR SUPPLE*[Title/Abstract]	93.40	90.07	90.16	4.99
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR SCORE*	94.34	89.97	90.09	4.99
Adult[MeSH Terms] OR BLIND* OR SCORE*	94.34	89.97	90.09	4.99

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR BLIND* OR SCORE*	94.34	89.97	90.09	4.99
Adult[MeSH Terms] OR BLIND* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	89.77	89.94	4.99
Adult[MeSH Terms] OR ASSIGN* OR INTERVENT*	94.34	89.95	90.06	5.00
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR SUPPLE*[Title/Abstract]	95.28	89.85	89.99	5.00
Adult[MeSH Terms] OR PLACEBO* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	89.75	89.91	5.00
Adult[MeSH Terms] OR TRIAL* OR ASSIGN*	99.06	89.42	89.67	5.01
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR ASSIGN*	99.06	89.42	89.67	5.01
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR ASSIGN*	99.06	89.42	89.67	5.01
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.52	89.74	5.01
TRIAL* OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	94.34	89.87	89.99	5.03
Adult[MeSH Terms] OR DOUBLE OR YOUNG	93.40	89.97	90.06	5.03
Adult[MeSH Terms] OR PARTICIPANT* OR Adult[MeSH Terms] OR SCORE*	92.45	90.07	90.13	5.03
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.42	89.65	5.05
Adult[MeSH Terms] OR BASELINE OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	95.28	89.72	89.87	5.05
Adult[MeSH Terms] OR PLACEBO* OR SUPPLE*[Title/Abstract]	94.34	89.82	89.94	5.05
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	89.39	89.62	5.06
Adult[MeSH Terms] OR BLIND* OR SUPPLE*[Title/Abstract]	94.34	89.80	89.91	5.06
Adult[MeSH Terms] OR BASELINE OR SCORE*	93.40	89.90	89.99	5.06
Adult[MeSH Terms] OR PLACEBO* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.37	89.60	5.07
Adult[MeSH Terms] OR BLIND* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.37	89.60	5.07
TRIAL* OR Middle Aged[MeSH Terms] OR INTERVENT*[Title/Abstract]	96.23	89.55	89.72	5.08
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR DOUBLE[Title/Abstract]	97.17	89.42	89.62	5.09
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	97.17	89.42	89.62	5.09
Adult[MeSH Terms] OR ASSIGN* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	89.19	89.45	5.10
Adult[MeSH Terms] OR ASSIGN* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	89.49	89.67	5.10
Adult[MeSH Terms] OR BASELINE OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	89.27	89.50	5.11
TRIAL* OR Middle Aged[MeSH Terms] OR INTERVENT*	96.23	89.47	89.65	5.11
Adult[MeSH Terms] OR ASSIGN* OR SCORE*	94.34	89.67	89.79	5.11
TRIAL* OR INTERVENT*[Title/Abstract] OR OUTCOME*	93.40	89.77	89.87	5.11
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	89.22	89.45	5.13
Adult[MeSH Terms] OR BASELINE OR SUPPLE*[Title/Abstract]	93.40	89.72	89.82	5.13
Adult[MeSH Terms] OR PARTICIPANT* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	91.51	89.92	89.96	5.13

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR DOUBLE	97.17	89.29	89.50	5.14
Adult[MeSH Terms] OR DOUBLE OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	97.17	89.29	89.50	5.14
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	89.27	89.47	5.15
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR Young Adult[MeSH Terms]	97.17	89.27	89.47	5.15
TRIAL* OR Young Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	89.27	89.47	5.15
TRIAL* OR YEAR*[Title/Abstract] OR Young Adult[MeSH Terms]	97.17	89.24	89.45	5.16
TRIAL* OR INTERVENT* OR OUTCOME*	93.40	89.65	89.74	5.16
Adult[MeSH Terms] OR TRIAL* OR YOUNG	98.11	89.09	89.33	5.17
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR YOUNG	98.11	89.09	89.33	5.17
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR YOUNG	98.11	89.09	89.33	5.17
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR YOUNG	98.11	89.09	89.33	5.17
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	89.07	89.30	5.18
Adult[MeSH Terms] OR PLACEBO* OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	89.07	89.30	5.18
Adult[MeSH Terms] OR ASSIGN* OR SUPPLE*[Title/Abstract]	94.34	89.47	89.60	5.19
TRIAL* OR YEAR* OR Young Adult[MeSH Terms]	97.17	89.14	89.35	5.19
TRIAL* OR Young Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	96.23	89.24	89.42	5.20
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract]	93.40	89.52	89.62	5.21
Adult[MeSH Terms] OR PARTICIPANT* OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	89.09	89.30	5.21
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	88.92	89.16	5.24
Adult[MeSH Terms] OR BLIND* OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	89.02	89.23	5.24
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	88.89	89.13	5.25
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR YOUNG	98.11	88.89	89.13	5.25
Adult[MeSH Terms] OR BASELINE OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	88.89	89.13	5.25
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	98.11	88.84	89.08	5.27
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR INTERVENT*[Title/Abstract]	97.17	88.94	89.16	5.27
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	97.17	88.94	89.16	5.27
TRIAL* OR Middle Aged[MeSH Terms] OR SCORE*	95.28	89.14	89.30	5.28
TRIAL* OR SCORE* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	95.28	89.14	89.30	5.28
TRIAL* OR YOUNG OR OUTCOME*	95.28	89.09	89.25	5.30
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR BASELINE	98.11	88.77	89.01	5.30
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR INTERVENT*	97.17	88.87	89.08	5.30
TRIAL*[Title/Abstract] OR ADULT* OR Middle Aged[MeSH Terms]	97.17	88.87	89.08	5.30
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	97.17	88.87	89.08	5.30
Adult[MeSH Terms] OR BLIND* OR OUTCOME*	96.23	88.94	89.13	5.31
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR OUTCOME*[Title/Abstract]	98.11	88.72	88.96	5.32

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	88.72	88.96	5.32
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR INTERVENT*[Title/Abstract]	93.40	89.24	89.35	5.32
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR INTERVENT*[Title/Abstract]	93.40	89.24	89.35	5.32
TRIAL* OR SCORE* OR OUTCOME*	93.40	89.24	89.35	5.32
Adult[MeSH Terms] OR TRIAL* OR DOUBLE[Title/Abstract]	98.11	88.69	88.94	5.33
Adult[MeSH Terms] OR PLACEBO* OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	88.69	88.94	5.33
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR DOUBLE[Title/Abstract]	98.11	88.69	88.94	5.33
Adult[MeSH Terms] OR BLIND* OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	88.69	88.94	5.33
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR ASSIGN*	99.06	88.51	88.79	5.35
Adult[MeSH Terms] OR ASSIGN* OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	88.62	88.86	5.36
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR INTERVENT*	93.40	89.14	89.25	5.36
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR INTERVENT*	93.40	89.14	89.25	5.36
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	98.11	88.59	88.84	5.37
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR BASELINE	98.11	88.59	88.84	5.37
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	88.59	88.84	5.37
Adult[MeSH Terms] OR TRIAL* OR DOUBLE	98.11	88.56	88.81	5.38
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR DOUBLE	98.11	88.56	88.81	5.38
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR ASSIGN*	99.06	88.44	88.71	5.38
Adult[MeSH Terms] OR DOUBLE OR INTERVENT*[Title/Abstract]	93.40	89.09	89.20	5.38
Adult[MeSH Terms] OR DOUBLE OR INTERVENT*[Title/Abstract]	93.40	89.09	89.20	5.38
Adult[MeSH Terms] OR TRIAL* OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	88.54	88.79	5.38
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR ADULT*	97.17	88.64	88.86	5.39
TRIAL* OR YEAR*[Title/Abstract] OR Aged[MeSH Terms]	98.11	88.51	88.76	5.39
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR OUTCOME*[Title/Abstract]	95.28	88.84	89.01	5.40
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	88.72	88.91	5.40
TRIAL* OR YEAR*[Title/Abstract] OR INTERVENT*[Title/Abstract]	94.34	88.92	89.06	5.41
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR SCORE*	97.17	88.56	88.79	5.42
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	97.17	88.56	88.79	5.42
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	88.44	88.69	5.42
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type]	98.11	88.44	88.69	5.42
TRIAL* OR YEAR* OR Aged[MeSH Terms]	98.11	88.44	88.69	5.42
Adult[MeSH Terms] OR DOUBLE OR INTERVENT*	93.40	88.99	89.11	5.42
Adult[MeSH Terms] OR DOUBLE OR INTERVENT*	93.40	88.99	89.11	5.42
TRIAL* OR Middle Aged[MeSH Terms] OR RANDOM*[Title/Abstract]	95.28	88.77	88.94	5.43
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR SCORE*	94.34	88.87	89.01	5.43
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR SCORE*	94.34	88.87	89.01	5.43

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract]	94.34	88.87	89.01	5.43
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR PLACEBO*	98.11	88.41	88.67	5.43
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR YOUNG	97.17	88.49	88.71	5.45
TRIAL* OR YOUNG OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	88.49	88.71	5.45
TRIAL* OR YEAR*[Title/Abstract] OR INTERVENT*	94.34	88.82	88.96	5.45
TRIAL* OR YEAR* OR INTERVENT*[Title/Abstract]	94.34	88.82	88.96	5.45
Adult[MeSH Terms] OR DOUBLE OR OUTCOME*[Title/Abstract]	95.28	88.69	88.86	5.46
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR PARTICIPANT*	97.17	88.46	88.69	5.46
Adult[MeSH Terms] OR DOUBLE OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	96.23	88.56	88.76	5.46
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR Aged[MeSH Terms]	98.11	88.31	88.57	5.47
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR BASELINE	98.11	88.29	88.54	5.48
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	88.29	88.54	5.48
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR SUPPLE*[Title/Abstract]	97.17	88.39	88.62	5.49
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR BLIND*	97.17	88.39	88.62	5.49
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	97.17	88.39	88.62	5.49
Adult[MeSH Terms] OR DOUBLE OR SCORE*	94.34	88.72	88.86	5.49
Adult[MeSH Terms] OR DOUBLE OR SCORE*	94.34	88.72	88.86	5.49
TRIAL* OR YEAR* OR INTERVENT*	94.34	88.72	88.86	5.49
TRIAL* OR YEAR*[Title/Abstract] OR SCORE*	95.28	88.59	88.76	5.50
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR SUPPLE*[Title/Abstract]	94.34	88.69	88.84	5.50
Adult[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.24	88.49	5.50
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms]	98.11	88.24	88.49	5.50
TRIAL* OR YEAR*[Title/Abstract] OR YOUNG	97.17	88.29	88.52	5.52
TRIAL* OR YEAR* OR SCORE*	95.28	88.51	88.69	5.52
Adult[MeSH Terms] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
Adult[MeSH Terms] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	98.11	88.16	88.42	5.53

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	98.11	88.16	88.42	5.53
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR INTERVENT*	98.11	88.16	88.42	5.53
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms] OR INTERVENT*	98.11	88.16	88.42	5.53
TRIAL* OR INTERVENT* OR Adult[MeSH Terms]	98.11	88.16	88.42	5.53
TRIAL* OR YOUNG OR TRIAL*[Title/Abstract] OR MIDDLE	96.23	88.39	88.59	5.53
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	88.14	88.40	5.54
Adult[MeSH Terms] OR DOUBLE OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	88.14	88.40	5.54
Adult[MeSH Terms] OR DOUBLE OR SUPPLE*[Title/Abstract]	94.34	88.54	88.69	5.56
TRIAL* OR YEAR* OR YOUNG	97.17	88.19	88.42	5.56
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR Middle Aged[MeSH Terms]	98.11	88.06	88.32	5.57
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR ASSIGN*	98.11	88.06	88.32	5.57
TRIAL* OR Middle Aged[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	88.06	88.32	5.57
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	88.06	88.32	5.57
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	88.04	88.30	5.58
TRIAL* OR Middle Aged[MeSH Terms] OR OUTCOME*	95.28	88.36	88.54	5.58
Adult[MeSH Terms] OR BLIND* OR YEAR*[Title/Abstract]	95.28	88.36	88.54	5.58
TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR OUTCOME*	95.28	88.36	88.54	5.58
TRIAL* OR Middle Aged[MeSH Terms] OR RANDOM*	95.28	88.34	88.52	5.59
Adult[MeSH Terms] OR TRIAL* OR OUTCOME*[Title/Abstract]	98.11	87.99	88.25	5.60
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	98.11	87.99	88.25	5.60
TRIAL* OR INTERVENT* OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	87.99	88.25	5.60
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR INTERVENT*	98.11	87.96	88.23	5.61
TRIAL* OR Young Adult[MeSH Terms] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	96.23	88.19	88.40	5.61
Adult[MeSH Terms] OR BLIND* OR YEAR*	95.28	88.29	88.47	5.61
Adult[MeSH Terms] OR BASELINE OR TRIAL* OR INTERVENT*[Title/Abstract]	98.11	87.94	88.20	5.62
Adult[MeSH Terms] OR TRIAL* OR TRIAL*[Title/Abstract] OR ADULT*	98.11	87.91	88.18	5.63
Adult[MeSH Terms] OR TRIAL* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	87.91	88.18	5.63
Adult[MeSH Terms] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	98.11	87.89	88.15	5.63
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR SCORE*	98.11	87.89	88.15	5.63
TRIAL* OR SCORE* OR Adult[MeSH Terms]	98.11	87.89	88.15	5.63
Adult[MeSH Terms] OR BASELINE OR TRIAL* OR INTERVENT*	98.11	87.86	88.13	5.64

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	95.28	88.19	88.37	5.65
TRIAL* OR INTERVENT*[Title/Abstract] OR TRIAL*[Title/Abstract] OR MIDDLE	96.23	88.06	88.27	5.66
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	87.94	88.18	5.66
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR INTERVENT*[Title/Abstract]	99.06	87.64	87.93	5.69
TRIAL* OR INTERVENT* OR TRIAL*[Title/Abstract] OR MIDDLE	96.23	87.99	88.20	5.69
Adult[MeSH Terms] OR TRIAL* OR SUPPLE*[Title/Abstract]	98.11	87.74	88.00	5.69
TRIAL* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	87.74	88.00	5.69
TRIAL* OR Young Adult[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	87.74	88.00	5.69
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	87.74	88.00	5.69
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR Adult[MeSH Terms] OR INTERVENT*	95.28	88.09	88.27	5.69
TRIAL* OR SCORE* OR Adult[MeSH Terms] OR PARTICIPANT*	98.11	87.71	87.98	5.70
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR Aged[MeSH Terms]	95.28	88.06	88.25	5.70
Adult[MeSH Terms] OR DOUBLE OR TRIAL*[Title/Abstract] OR MIDDLE	97.17	87.81	88.05	5.71
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR SCORE*	98.11	87.69	87.96	5.71
Adult[MeSH Terms] OR INTERVENT*[Title/Abstract] OR SCORE*	92.45	88.39	88.49	5.71
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR INTERVENT*	99.06	87.56	87.86	5.71
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	98.11	87.64	87.91	5.73
TRIAL* OR Middle Aged[MeSH Terms] OR YEAR*[Title/Abstract]	99.06	87.51	87.81	5.73
TRIAL* OR YEAR*[Title/Abstract] OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	87.51	87.81	5.73
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR OUTCOME*	96.23	87.86	88.08	5.74
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	87.61	87.88	5.74
Adult[MeSH Terms] OR BASELINE OR TRIAL* OR SCORE*	98.11	87.58	87.86	5.75
Adult[MeSH Terms] OR INTERVENT* OR SCORE*	92.45	88.29	88.40	5.76
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	93.40	88.16	88.30	5.76
TRIAL* OR Middle Aged[MeSH Terms] OR YEAR*	99.06	87.43	87.74	5.76
TRIAL* OR YEAR* OR TRIAL*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	87.43	87.74	5.76
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	87.53	87.81	5.77
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR Young Adult[MeSH Terms]	96.23	87.76	87.98	5.77
Adult[MeSH Terms] OR INTERVENT*[Title/Abstract] OR SUPPLE*[Title/Abstract]	92.45	88.24	88.35	5.78
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	87.51	87.78	5.78
Adult[MeSH Terms] OR TRIAL* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	87.48	87.76	5.79
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	98.11	87.48	87.76	5.79
Adult[MeSH Terms] OR DOUBLE OR OUTCOME*	96.23	87.71	87.93	5.79
Adult[MeSH Terms] OR DOUBLE OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	87.46	87.74	5.80
TRIAL* OR SCORE* OR TRIAL*[Title/Abstract] OR MIDDLE	95.28	87.79	87.98	5.81

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	95.28	87.79	87.98	5.81
Adult[MeSH Terms] OR INTERVENT* OR SUPPLE*[Title/Abstract]	92.45	88.14	88.25	5.82
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR SCORE*	99.06	87.28	87.59	5.82
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR INTERVENT*[Title/Abstract]	97.17	87.48	87.74	5.83
TRIAL* OR INTERVENT*[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	87.48	87.74	5.83
TRIAL*[Title/Abstract] OR MIDDLE OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	97.17	87.46	87.71	5.84
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	87.33	87.61	5.85
Adult[MeSH Terms] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR Adult[MeSH Terms] OR SCORE*	94.34	87.81	87.98	5.85
TRIAL*[Title/Abstract] OR ADULT* OR MIDDLE	97.17	87.41	87.66	5.86
TRIAL*[Title/Abstract] OR MIDDLE OR Adult[MeSH Terms] OR INTERVENT*	97.17	87.38	87.64	5.87
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR INTERVENT*	98.11	87.26	87.54	5.88
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR INTERVENT*	97.17	87.36	87.61	5.88
TRIAL* OR INTERVENT* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	97.17	87.36	87.61	5.88
TRIAL* OR YEAR*[Title/Abstract] OR OUTCOME*	96.23	87.46	87.69	5.89
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR DOUBLE[Title/Abstract]	97.17	87.31	87.56	5.90
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	87.18	87.47	5.90
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR OUTCOME*	99.06	87.03	87.34	5.91
Adult[MeSH Terms] OR PARTICIPANT* OR TRIAL* OR OUTCOME*	99.06	87.03	87.34	5.91
TRIAL* OR YEAR* OR OUTCOME*	96.23	87.38	87.61	5.92
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR TRIAL*[Title/Abstract] OR MIDDLE	98.11	87.13	87.42	5.92
TRIAL*[Title/Abstract] OR MIDDLE OR Adult[MeSH Terms] OR SCORE*	97.17	87.21	87.47	5.94
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR DOUBLE	97.17	87.18	87.44	5.95
Adult[MeSH Terms] OR TRIAL* OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	87.06	87.34	5.95
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	87.06	87.34	5.95
Adult[MeSH Terms] OR SCORE* OR SUPPLE*[Title/Abstract]	91.51	87.91	88.00	5.96
Adult[MeSH Terms] OR BASELINE OR TRIAL* OR OUTCOME*	99.06	86.91	87.22	5.96
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL*[Title/Abstract] OR MIDDLE	94.34	87.51	87.69	5.97
RANDOM* OR Middle Aged[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	87.01	87.29	5.97
TRIAL* OR YOUNG OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	96.23	87.23	87.47	5.98
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR INTERVENT*	98.11	86.96	87.25	5.99

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR SCORE*	98.11	86.93	87.22	6.00
TRIAL* OR SCORE* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	98.11	86.93	87.22	6.00
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR SCORE*	98.11	86.91	87.20	6.01
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SCORE*	98.11	86.88	87.17	6.02
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR YEAR*[Title/Abstract]	95.28	87.26	87.47	6.02
TRIAL*[Title/Abstract] OR MIDDLE OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	97.17	86.96	87.22	6.04
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	98.11	86.81	87.10	6.05
Adult[MeSH Terms] OR DOUBLE[Title/Abstract] OR YEAR*	95.28	87.18	87.39	6.05
TRIAL* OR YOUNG OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	86.78	87.07	6.06
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	96.23	86.98	87.22	6.08
Adult[MeSH Terms] OR DOUBLE OR YEAR*[Title/Abstract]	95.28	87.11	87.32	6.08
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	97.17	86.83	87.10	6.09
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR OUTCOME*	99.06	86.55	86.88	6.10
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR INTERVENT*	96.23	86.91	87.15	6.11
Adult[MeSH Terms] OR DOUBLE OR YEAR*	95.28	87.03	87.25	6.11
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR INTERVENT*	97.17	86.76	87.03	6.12
TRIAL* OR OUTCOME* OR TRIAL*[Title/Abstract] OR MIDDLE	95.28	87.01	87.22	6.12
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	98.11	86.58	86.88	6.13
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR YOUNG	96.23	86.83	87.07	6.14
Adult[MeSH Terms] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	99.06	86.38	86.71	6.16
RANDOM* OR Middle Aged[MeSH Terms] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	86.50	86.81	6.16
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR SCORE*	96.23	86.71	86.95	6.19
Adult[MeSH Terms] OR TRIAL* OR YEAR*	99.06	86.30	86.63	6.19
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR YEAR*	99.06	86.30	86.63	6.19
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR YEAR*	99.06	86.30	86.63	6.19
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	99.06	86.30	86.63	6.19
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.20	86.54	6.23
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR PARTICIPANT*	99.06	86.20	86.54	6.23
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR SCORE*	97.17	86.45	86.73	6.23
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR INTERVENT*[Title/Abstract]	96.23	86.55	86.81	6.25
TRIAL*[Title/Abstract] OR ADULT* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	98.11	86.28	86.59	6.25
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR OUTCOME*	99.06	86.13	86.46	6.26
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR YEAR*	99.06	86.13	86.46	6.26

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR PARTICIPANT*	99.06	86.13	86.46	6.26
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR TRIAL* OR OUTCOME*	99.06	86.13	86.46	6.26
TRIAL*[Title/Abstract] OR ADULT* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	97.17	86.38	86.66	6.26
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR INTERVENT*	96.23	86.48	86.73	6.27
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR BASELINE	99.06	86.05	86.39	6.29
TRIAL* OR YEAR*[Title/Abstract] OR TRIAL*[Title/Abstract] OR MIDDLE	99.06	86.05	86.39	6.29
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR BASELINE	99.06	85.98	86.32	6.31
TRIAL* OR YEAR* OR TRIAL*[Title/Abstract] OR MIDDLE	99.06	85.98	86.32	6.31
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms] OR SCORE*	98.11	86.10	86.41	6.32
TRIAL* OR SCORE* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	98.11	86.10	86.41	6.32
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR SCORE*	96.23	86.35	86.61	6.32
TRIAL* OR INTERVENT* OR Adult[MeSH Terms] OR SCORE*	98.11	86.03	86.34	6.35
TRIAL* OR SCORE* OR Adult[MeSH Terms] OR INTERVENT*	98.11	86.03	86.34	6.35
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR ASSIGN*	100.00	85.73	86.10	6.36
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR ASSIGN*	100.00	85.67	86.05	6.38
TRIAL* OR INTERVENT*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	85.93	86.24	6.38
TRIAL* OR INTERVENT* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	85.85	86.17	6.41
TRIAL*[Title/Abstract] OR ADULT* OR RANDOM* OR Middle Aged[MeSH Terms]	98.11	85.70	86.02	6.47
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	99.06	85.52	85.88	6.49
TRIAL* OR SCORE* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	98.11	85.65	85.97	6.49
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR YEAR*[Title/Abstract]	99.06	85.50	85.85	6.50
TRIAL* OR YEAR*[Title/Abstract] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	99.06	85.50	85.85	6.50
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR INTERVENT*	99.06	85.45	85.80	6.51
RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms] OR TRIAL* OR OUTCOME*	96.23	85.85	86.12	6.52
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR YEAR*	99.06	85.42	85.78	6.52
TRIAL* OR YEAR* OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT*	99.06	85.42	85.78	6.52
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR SCORE*	99.06	85.10	85.46	6.65
TRIAL* OR YEAR*[Title/Abstract] OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	85.05	85.41	6.67
RANDOM* OR Middle Aged[MeSH Terms] OR TRIAL* OR OUTCOME*	96.23	85.45	85.73	6.68
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	85.00	85.36	6.69
TRIAL* OR YEAR* OR RANDOM*[Title/Abstract] OR Middle Aged[MeSH Terms]	99.06	84.97	85.34	6.70
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	99.06	84.77	85.14	6.77
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR INTERVENT*	99.06	84.69	85.07	6.80
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	99.06	84.69	85.07	6.80
TRIAL* OR YEAR*[Title/Abstract] OR RANDOM* OR Middle Aged[MeSH Terms]	99.06	84.64	85.02	6.82
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR INTERVENT*	99.06	84.62	84.99	6.83
TRIAL* OR YEAR* OR RANDOM* OR Middle Aged[MeSH Terms]	99.06	84.57	84.94	6.85
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SCORE*	99.06	84.47	84.85	6.89

Three or four search terms	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02

Appendix 14

The top search terms or search combinations with the best sensitivity in the development set and validation set

Search terms or search combinations	Development set				Validation set			
	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR ASSIGN*	100.00	85.73	86.10	6.36	99.05	85.70	86.04	6.47
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR ASSIGN*	100.00	85.67	86.05	6.38	99.05	85.60	85.95	6.51
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	85.00	85.36	6.69	100.00	84.80	85.19	6.76
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SCORE*	99.06	84.39	84.77	6.91	100.00	84.02	84.43	7.06
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SCORE*	99.06	84.47	84.85	6.89	100.00	84.12	84.52	7.02
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR OUTCOME*	99.06	86.55	86.88	6.10	99.05	86.05	86.39	6.34
Adult[MeSH Terms] OR ASSIGN* OR TRIAL* OR SCORE*	99.06	87.28	87.59	5.82	99.05	86.71	87.02	6.09
Adult[MeSH Terms] OR BASELINE OR TRIAL* OR OUTCOME*	99.06	86.91	87.22	5.96	99.05	86.43	86.75	6.19
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85	99.05	86.78	87.10	6.06
Adult[MeSH Terms] OR PARTICIPANT* OR TRIAL* OR OUTCOME*	99.06	87.03	87.34	5.91	99.05	86.63	86.95	6.12
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR OUTCOME*	99.06	87.03	87.34	5.91	99.05	86.65	86.97	6.11
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR YEAR*	99.06	86.13	86.46	6.26	99.05	86.20	86.53	6.28
Adult[MeSH Terms] OR PLACEBO* OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.20	86.54	6.23	99.05	86.30	86.63	6.24
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85	99.05	86.78	87.10	6.06
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR YEAR*	99.06	86.30	86.63	6.19	99.05	86.33	86.66	6.23
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16	99.05	86.43	86.75	6.19
Adult[MeSH Terms] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85	99.05	86.78	87.10	6.06
Adult[MeSH Terms] OR TRIAL* OR YEAR*	99.06	86.30	86.63	6.19	99.05	86.33	86.66	6.23
Adult[MeSH Terms] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16	99.05	86.43	86.75	6.19
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85	99.05	86.78	87.10	6.06
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR YEAR*	99.06	86.30	86.63	6.19	99.05	86.33	86.66	6.23
Adult[MeSH Terms] OR TRIAL*[Title/Abstract] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16	99.05	86.43	86.75	6.19
RANDOMIZED CONTROLLED TRIAL[Publication Type] OR ADULT* OR TRIAL* OR OUTCOME*	99.06	86.13	86.46	6.26	99.05	86.71	87.02	6.09
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR INTERVENT*	99.06	85.45	85.80	6.51	99.05	85.35	85.70	6.61

Search terms or search combinations	Development set				Validation set			
	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	99.06	85.52	85.88	6.49	99.05	85.45	85.80	6.57
TRIAL* OR OUTCOME* OR Adult[MeSH Terms] OR SCORE*	99.06	85.10	85.46	6.65	99.05	84.47	84.84	6.94
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR BASELINE	99.06	85.98	86.32	6.31	99.05	85.95	86.29	6.38
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	99.06	86.30	86.63	6.19	99.05	86.33	86.66	6.23
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR INTERVENT*	99.06	84.62	84.99	6.83	99.05	84.90	85.26	6.78
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	99.06	84.69	85.07	6.80	99.05	85.00	85.36	6.74
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.32	84.70	6.94	99.05	84.44	84.82	6.95
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR PARTICIPANT*	99.06	86.13	86.46	6.26	99.05	86.15	86.48	6.30
TRIAL* OR YEAR* OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.12	84.50	7.02	99.05	84.37	84.75	6.98
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR BASELINE	99.06	86.05	86.39	6.29	99.05	86.05	86.39	6.34
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms]	99.06	86.38	86.71	6.16	99.05	86.43	86.75	6.19
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR INTERVENT*	99.06	84.69	85.07	6.80	99.05	85.00	85.36	6.74
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR INTERVENT*[Title/Abstract]	99.06	84.77	85.14	6.77	99.05	85.10	85.46	6.70
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR OUTCOME*[Title/Abstract]	99.06	84.39	84.77	6.91	99.05	84.52	84.89	6.92
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR PARTICIPANT*	99.06	86.20	86.54	6.23	99.05	86.25	86.58	6.26
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR SUPPLE*[Title/Abstract]	99.06	84.19	84.58	6.99	99.05	84.47	84.84	6.94
TRIAL*[Title/Abstract] OR ADULT* OR TRIAL* OR OUTCOME*	99.06	86.13	86.46	6.26	99.05	86.71	87.02	6.09

Appendix 15

The top search terms or search combinations with the best specificity in the development set and validation set

Search terms or search combinations	Development set				Validation set			
	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Double-Blind Method[MeSH Terms]	55.66	99.42	98.29	1.39	60	99.47	98.46	1.33
BLIND*	56.6	99.17	98.07	1.55	60	99.2	98.19	1.51
ASSIGN*	25.47	99.17	97.26	2.22	26.67	99.04	97.18	2.36
PARTICIPANT*[Title/Abstract]	25.47	99.17	97.26	2.22	23.81	98.99	97.06	2.6
PLACEBO*	58.49	99.12	98.07	1.56	59.05	99.17	98.14	1.53

Appendix 16

The top search terms or search combinations with the best accuracy in the development set and validation set

Search terms or search combinations	Development set				Validation set			
	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Double-Blind Method[MeSH Terms]	55.66	99.42	98.29	1.39	60	99.47	98.46	1.33
PLACEBO*	58.49	99.12	98.07	1.56	59.05	99.17	98.14	1.53
BLIND*	56.6	99.17	98.07	1.55	60	99.2	98.19	1.51
BLIND* OR Double-Blind Method[MeSH Terms]	63.21	98.94	98.02	1.63	65.71	98.99	98.14	1.58
PLACEBO* OR Double-Blind Method[MeSH Terms]	63.21	98.89	97.97	1.66	68.57	98.94	98.16	1.58

Appendix 17

The top search terms or search combinations with the best NNR in the development set and validation set

Search terms or search combinations	Development set				Validation set			
	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
Double-Blind Method[MeSH Terms]	55.66	99.42	98.29	1.39	60	99.47	98.46	1.33
BLIND*	56.6	99.17	98.07	1.55	60	99.2	98.19	1.51
PLACEBO*	58.49	99.12	98.07	1.56	59.05	99.17	98.14	1.53
BLIND* OR Double-Blind Method[MeSH Terms]	63.21	98.94	98.02	1.63	65.71	98.99	98.14	1.58
PLACEBO* OR Double-Blind Method[MeSH Terms]	63.21	98.89	97.97	1.66	68.57	98.94	98.16	1.58

Appendix 18

Comparison of the performance measures of developed search filters and PubMed's search filter

Search terms	Description	Aloe vera			Ashwagandha			Ginger		
		Total	R	%R	Total	R	%R	Total	R	%R
"clinical study"[Filter]	PubMed's search filter	130	116	89.23	29	27	93.10	266	191	71.80
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR ASSIGN*	The best Se of 3 or 4 search terms	361	156	43.21	72	45	62.50	735	265	36.05
Adult[MeSH Terms] OR TRIAL* OR YEAR*[Title/Abstract]	The second-best Se of 3 or 4 search terms	340	156	45.88	69	44	63.77	699	260	37.20
Adult[MeSH Terms] OR TRIAL* OR ASSIGN*	The third-best Se of 3 or 4 search terms	300	149	49.67	54	40	74.07	612	261	42.65
Adult[MeSH Terms] OR TRIAL* OR OUTCOME*	The fourth-best Se of 3 or 4 search terms	315	151	47.94	63	45	71.43	636	257	40.41
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR YEAR*[Title/Abstract]	The fifth-best Se of 3 or 4 search terms	340	156	45.88	69	44	63.77	699	260	37.20
TRIAL* OR Young Adult[MeSH Terms] OR YOUNG	The best Sp, Ac, and NNR of 3 or 4 search terms	224	147	65.63	50	40	80.00	496	253	51.01
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR PARTICIPANT*	The second-best Sp and Ac of 3 or 4 search terms The third-best NNR of 3 or 4 search terms	212	110	51.89	40	33	82.50	434	212	48.85
Adult[MeSH Terms] OR BLIND* OR Young Adult[MeSH Terms]	The third-best Sp of 3 or 4 search terms The fourth-best Ac of 3 or 4 search terms	226	127	56.19	46	39	84.78	431	219	50.81
Adult[MeSH Terms] OR BLIND* OR Aged[MeSH Terms]	The fourth-best Sp of 3 or 4 search terms The fifth-best Ac of 3 or 4 search terms	226	127	56.19	46	39	84.78	431	219	50.81
Adult[MeSH Terms] OR PLACEBO* OR Double-Blind Method[MeSH Terms]	The fifth-best Sp, the third-best Ac, and the second-best NNR of 3 or 4 search terms	219	120	54.79	53	46	86.79	451	235	52.11
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR PARTICIPANT*	The fourth-best NNR of 3 or 4 search terms	227	123	54.19	40	33	82.50	462	219	47.40
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR Double-Blind Method[MeSH Terms]	The fifth-best NNR of 3 or 4 search terms	207	113	54.59	31	25	80.65	412	195	47.33

Total = the total number of retrieval articles, R = the number of relevant articles, %R = percent of relevant articles

Appendix 19

The performance measures when testing search filters with Thai herb search

Search Filters	None		"clinical study"[Filter]		Developed search filters									
					No 1		No 2		No 3		No 4		No 5	
Herb names	Total	R	Total	R (%R)	Total	R (%R)	Total	R (%R)	Total	R (%R)	Total	R (%R)	Total	R (%R)
Andrographis paniculata	422	11	6	3 (50.00%)	26	10 (38.46%)	25	10 (40.00%)	20	10 (50.00%)	19	9 (47.37%)	10	7 (70.00%)
Solanum indicum L.	1	0	0	0 (0%)	0	0 (0%)	0	0 (0%)	0	0 (0%)	0	0 (0%)	0	0 (0%)
Phyllanthus emblica	215	8	11	6 (54.55%)	28	7 (25.00%)	26	7 (26.92%)	22	7 (31.82%)	18	7 (38.89%)	14	6 (42.86%)
Curcuma longa L.	2874	N/A	135	95 (70.37%)	373	119 (31.90%)	354	115 (32.49%)	283	115 (40.64%)	240	114 (47.50%)	177	94 (53.11%)
Cassia acutifolia Del.	725	17	22	8 (36.36%)	154	15 (9.74%)	145	14 (9.66%)	100	13 (13.00%)	67	12 (17.91%)	77	12 (15.58%)
Derris scandens (Roxb.) Benth	3	0	0	0 (0%)	0	0 (0%)	0	0 (0%)	0	0 (0%)	0	0 (0%)	0	0 (0%)
Zingiber cassumunar Roxb.	8	1	0	0 (0%)	2	1 (50.00%)	2	1 (50.00%)	2	1 (50.00%)	2	1 (50.00%)	1	1 (100.00%)
Clinacanthus nutans (Burm.f.) Lindau	13	0	0	0 (0%)	0	0 (0%)	0	0 (0%)	0	0 (0%)	0	0 (0%)	0	0 (0%)
Capsicum spp.	2060	N/A	24	9 (37.50%)	183	9 (4.92%)	160	9 (5.63%)	122	9 (7.38%)	97	9 (9.28%)	54	10 (18.52%)
Thunbergia laurifolia	20	2	1	1 (100.00%)	3	2 (66.67%)	3	2 (66.67%)	2	1 (50.00%)	2	1 (50.00%)	0	0 (0%)

Appendix 20

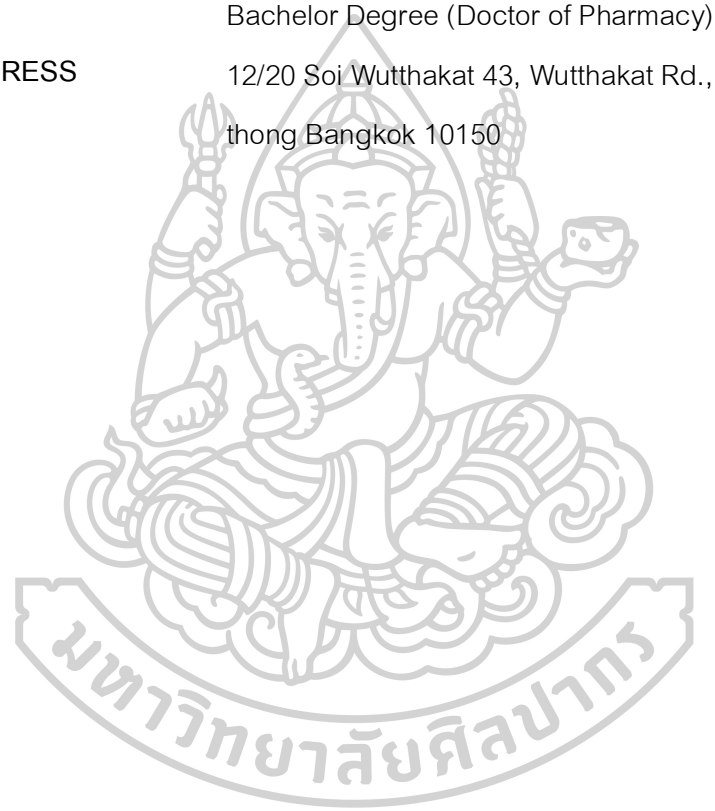
The F-measure of each search filter

Herb names	"clinical study"[Filter]	Developed search filters				
		No 1	No 2	No 3	No 4	No 5
Andrographis paniculata	0.35	0.54	0.56	0.65	0.60	0.67
Solanum indicum L.	0.00	0.00	0.00	0.00	0.00	0.00
Phyllanthus emblica	0.63	0.39	0.41	0.47	0.54	0.55
Curcuma longa L.	N/A	N/A	N/A	N/A	N/A	N/A
Cassia acutifolia Del.	0.41	0.18	0.17	0.22	0.29	0.26
Derris scandens (Roxb.) Benth	0.00	0.00	0.00	0.00	0.00	0.00
Zingiber cassumunar Roxb.	0.00	0.67	0.67	0.67	0.67	1.00
Clinacanthus nutans (Burm.f.) Lindau	0.00	0.00	0.00	0.00	0.00	0.00
Capsicum spp.	N/A	N/A	N/A	N/A	N/A	N/A
Thunbergia laurifolia	0.67	0.80	0.80	0.50	0.50	0.00

Appendix 21

The performance measures of of top-five three/four-term search combinations from development set before and after adding search terms

Search terms or search combinations	Before adding herb terms				After adding herb terms			
	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR	Sensitivity (%)	Specificity (%)	Accuracy (%)	NNR
TRIAL* OR YEAR*[Title/Abstract] OR Adult[MeSH Terms] OR ASSIGN*	100	85.73	86.01	6.36	63.21	95.28	94.44	3.81
Adult[MeSH Terms] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16	62.26	95.60	94.74	3.65
Adult[MeSH Terms] OR TRIAL* OR ASSIGN*	99.06	89.42	89.67	5.01	62.26	97.61	96.70	2.44
Adult[MeSH Terms] OR TRIAL* OR OUTCOME*	99.06	87.21	87.52	5.85	62.26	96.88	95.99	2.88
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR TRIAL* OR YEAR*[Title/Abstract]	99.06	86.38	86.71	6.16	62.26	95.60	94.74	3.65
TRIAL* OR Young Adult[MeSH Terms] OR YOUNG	92.45	92.54	92.53	4.03	57.55	98.27	97.21	2.13
Adult[MeSH Terms] OR Double-Blind Method[MeSH Terms] OR PARTICIPANT*	94.34	92.31	92.36	4.06	59.43	98.47	97.45	1.97
Adult[MeSH Terms] OR BLIND* OR Young Adult[MeSH Terms]	93.40	92.26	92.29	4.11	57.55	98.47	97.41	2.00
Adult[MeSH Terms] OR BLIND* OR Aged[MeSH Terms]	93.40	92.26	92.29	4.11	57.55	98.47	97.41	2.00
Adult[MeSH Terms] OR PLACEBO* OR Double-Blind Method[MeSH Terms]	95.28	92.23	92.31	4.06	59.43	98.49	97.48	1.95
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR PARTICIPANT*	96.23	92.08	92.19	4.09	60.38	98.42	97.43	1.98
Adult[MeSH Terms] OR RANDOMIZED CONTROLLED TRIAL[Publication Type] OR Double-Blind Method[MeSH Terms]	94.34	92.21	92.26	4.1	59.43	98.49	97.48	1.95

VITA

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