Supplementary methods

1. Selection process of clinical questions and identification of key words

The expert committee conducted the meetings online. During the initial meeting, they established the scope, key aspects of the recommendations, and the methodology. The group achieved consensus on the key areas to be addressed, which included disease definitions related to Takayasu's arteritis (TAK), diagnostic criteria, strategies for follow-up and monitoring, medical and interventional treatment approaches for disease management, and special considerations such as pregnancy. In the subsequent meetings, the substantial consensus was achieved regarding the clinical questions outlined in Table S1, and the literature review process was initiated.

Supplementary Table S1. Clinical questions for systematic literature research.

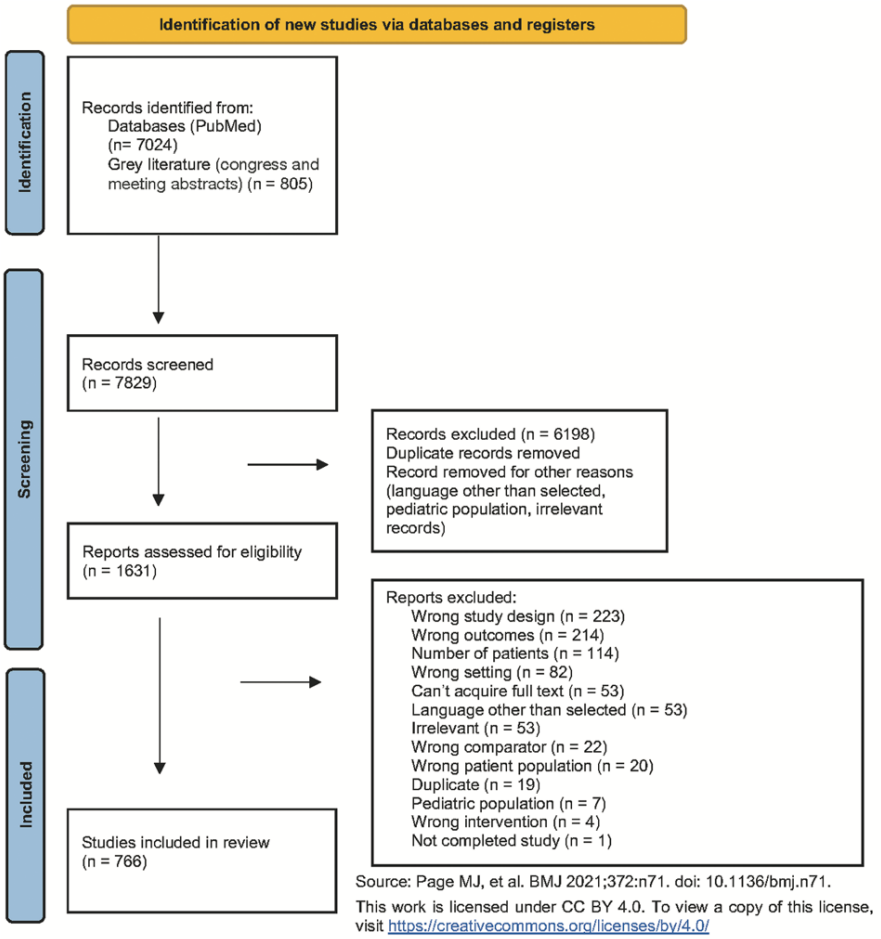
Symptoms and signs of TAK	Question 1: What are the clinical symptoms and signs suggesting TAK diagnosis? In which patients should TAK diagnosis be considered? Question 2: Which patients are at risk for a poor prognosis?
Diagnosis	Question 3: Which imaging methods should be selected for the diagnosis of TAK? Question 4: Which vascular territories should be assessed with baseline imaging at the time of diagnosis? Question 5: Which biomarkers can be used for the diagnosis of TAK?
Definitions	Question 6: What should be the definitions of active disease, remission, relapse and refractory disease?
Follow-up	Question 7: How often and by whom should patients with TAK be followed? Question 8: How should disease activity be assessed ? Which methods should to assess clinical activity and quality of life in TAK patients? Question 9: Which biomarkers should be used for the follow-up of TAK patients? Question 10: Should routine regular imaging be performed during the follow-up of TAK patients?
Management:	Question 11: Should treatment be escalated in TAK patients with increased acute phase reactants but no clinical symptoms or signs of active disease? Question 12: What corticosteroid doses should be used for remission induction and maintenance in TAK patients? Question 13: Should every patient with TAK receive immunosuppresants in addition to corticosteroids? Question 14: Which immunosuppresants should be used as first-line treatment in addition to corticosteroids? Question 15: Which bDMARDs should be preferred as the initial biologic? Question 16: Which patients should receive bDMARDs and when? Question 17: What should be the corticosteroid tapering and discontinuation scheme? Question 18: When should immunosuppresants and bDMARDs be discontinued? Question 19: Should treatment be modified based on the affected vessel (involvement of vital organs, *e.g.* pulmonary or coronary arteries) or the extent of vascular involvement?
ASA and statin treatment	Question 20: Should low-dose aspirin (81-300 mg/d), another antiplatelet agent, or statins be used routinely in patients with TAK? Question 21: What is the clinical course of TAK in patients with at least one of the following comorbidities: diabetes mellitus, hyperlipidaemia, essential hypertension, renovascular hypertension (including hypertension due to aortic involvement), and atherosclerosis, compared to patients without any of these comorbidities? What differences should there be in treatment and follow-up in patients with these comorbidities? Question 22. When TAK is accompanied by at least one of the inflammatory diseases such as psoriasis, psoriatic arthritis, ankylosing spondylitis, or Crohn's disease, is the clinical course and prognosis worse compared to those with only TAK? In cases where TAK is accompanied by an additional inflammatory disease; does the additional inflammatory disease or TAK have a different course in terms of demographic characteristics, biological requirement rates, and treatment responses?
Treatment during pregnancy	Question 23. What should be done during pregnancy planning in patients with TAK? Question 24. What is the most appropriate contraception method for patients with TAK? Question 25. How should the disease management be during pregnancy in TAK patients with cardiopulmonary involvement? Question 26. How should active disease be managed during pregnancy in TAK patients? Question 27. How should pregnant patients with TAK who are in remission be managed during maintenance treatment? Question 28. Which type of delivery should be preferred in patients with TAK?
Surgical treatment	Question 29. What are the indications for revascularisation in patients with TAK? Question 30. What are the indications for emergency surgery in TAK patients? Question 31. When should surgical treatment be performed, and under which medical treatment conditions? Question 32. Which surgical or interventional method should be preferred according to the vascular localisation and the length of the affected segment? - Interventional (Balloon angioplasty *vs*. Stent) *vs*. Open surgery

2. Systematic literature review

PubMed, abstracts of EULAR and ACR annual meetings, as well as Turkish National Rheumatology Congress proceedings were systematically reviewed to identify relevant studies from the inception of the database up to and including December 2021. The systematic literature search was carried out by junior researchers (SKT, BI, ECB, TYI, HEO, TS, AO, ZTD and FY) under the supervision of the methodologist (GH) and experts from the task force members for each group. Following an online training session on the methodology conducted by the methodologist (GH) for junior researchers, the junior researchers worked in pairs under the supervision of a task force member. The systematic literature review was conducted using Covidence.

Relevant key phrases corresponding to research questions were identified to guide the literature review. All researchers initially began by conducting a search using the keyword Takayasu*. There were 7024 studies imported from PubMed. Also, excluding case reports, all relevant congress and meeting abstracts containing the keyword 'Takayasu' were identified and included as gray literature. These abstracts were retrieved from the conference proceedings archive on the *American College of Rheumatology (ACR)* website (n=327), the published proceedings available on the *Turkish Society for Rheumatology* website (n=57), and the abstract archive on the *European League Against Rheumatism* (*EULAR)* website (n=421) up to the specified date of December 2021, resulting in a total of 805 abstracts.

Subsequently, each group continued by screening the prepared sources and selecting the relevant literature related to their respective research questions.



Supplementary Fig S1. PRISMA 2020 flow diagram for updated systematic reviews which included searches of databases, registers and other sources.

Only research published in English or Turkish was included. Additionally, only studies involving adult patients were considered. Titles and abstracts were examined for each clinical question to determine potential eligibility. Eligible publications included meta-analyses, systematic reviews, randomised clinical trials, cohort studies, and case series with at least five patients. In addition, reference lists of meta-analyses and systematic reviews were examined to check for any additional relevant articles that may have been missed during the literature search. The full-text selection of eligible studies was subsequently carried out collaboratively by junior and senior Task Force members. From a total of 1631 full-text articles, 766 were deemed eligible and selected for data extraction following the predefined criteria (Suppl. Fig S1). Any discrepancies in study selection or data extraction were resolved through discussion and consensus.