Supporting Information 1: Extended Materials and Methods

Literature review

A comprehensive search strategy was developed to identify all information relevant to immune-mediated thrombocytopenia (ITP) in dogs and cats as detailed in Table S1. On May 25, 2021, thirteen bibliographic databases were searched, including Medline (PubMed platform, 1946-present), Scopus (Elsevier platform, 1788-present), ProQuest Dissertations and Theses Global (ProQuest platform, 1743-present), Agricola (EBSCO platform, 1970-present), CAB Direct (www.cabdirect.org, 1973-present) and, via the Clarivate Analytics platform, Web of Science Core Collection (1900-present), CAB Abstracts (1910-present), KCI-Korean Journal Database (1980-present), SciELO Citation Index (2002-present), Russian Science Citation Index (2005-present), BIOSIS Citation Index (1926-present), BIOSIS Previews (1926-present) and Zoological Record (1864-present). No language or date limits were applied.

Titles, abstracts and keywords from identified records were exported from each database as .RIS or .TXT files, then imported into Covidence (https://www.covidence.org/) for de-duplication and screening. A total of 2,602 records were identified via database searches. Once imported into Covidence, 1,447 duplicates were identified and removed, leaving 1,155 unique records that were screened.

Initial study selection and eligibility criteria

Records were screened blindly in Covidence in two stages: firstly through reviewing the title and abstract alone, then via full text screening for records that were not excluded after the title and abstract screening. In both stages, each record was screened by two panelists, with a third panelist as a tie breaker when conflicts arose. Five-hundred sixty-eight (568) records were excluded at the title and abstract screening stage, and 587 records were screened at the full text level (Figure S1). During all stages of screening, records were excluded that did not meet all of the following inclusion criteria: (1) study was about dogs and/or cats; (2) study asked/answered a question about ITP; and (3) study represented primary empirical evidence and was not a patent, proceeding, review, abstract, thesis/dissertation or letter to the editor. Records in all languages were considered. When a non-English study needed to be screened, a participating researcher who had appropriate language skills evaluated the study or, if no translators were available, Google Translate (https://translate.google.com/) was used. Reasons for exclusion were recorded at the full text screening stage, and 308 records were excluded: 129 were patents, proceedings, reviews, abstracts, theses/dissertations or letters to the editor, 100 were duplicates, 71 did not ask/answer a question about ITP, 8 were not about dogs and/or cats, and 6 could not be obtained at the full text level. Two-hundred seventy-seven (273) records remained and were included as the initial set of articles to inform the evidence base for the consensus statement.

Further literature identification via Scopus and evaluator knowledge

Next steps were divided among expert evaluators in each domain (see consensus infrastructure) to assess ITP diagnosis (see ITP Diagnosis Consensus), ITP-associated comorbidities (see ITP Diagnosis Consensus), ITP treatment – medical, and ITP treatment – transfusion. For the treatment subgroups, one seminal paper for every therapeutic PICO question was identified by each evaluator. Forward citations of all seminal papers were investigated through the bibliographic database Scopus to yield 4 additional references. Additionally, 11 references were identified via evidence evaluator knowledge. A total of 288 references informed the treatment subgroups (Figure S1, Supporting information 2).

Development of consensus infrastructure

Panel members suggested specialists to serve as evidence evaluators based on their publications and collaborations relevant to canine and feline ITP, and their expertise in internal medicine, emergency and critical care, transfusion medicine or clinical pathology. After review by the entire panel, individuals were asked to participate via email solicitation and assigned to a Treatment-Medical therapy domain or a Treatment-Transfusion domain. The Treatment-Medical therapy domain was co-chaired by BK and AM and included 15 evidence evaluators (EHA, TMA, DB, SLB, BMB, MBC, CLF, ASH, AAH, JML, SKO, EAR, JMT, JEW, HEW). The Treatment-Transfusion domain was chaired by RG and included four evidence evaluators (AAO, JMH, ASH, JEW).

Development of PICO questions

The three treatment domain chairs generated clinical questions using a PICO format to investigate whether, in dogs and cats with primary immune thrombocytopenia (P), treatment with a specific therapeutic intervention (I) compared to a stated alternative intervention (C) improved any patient-centered outcomes (O). Outcomes included survival to discharge, 1-month, 3-month, and 6-month survival, duration of hospitalization, blood product usage, time to platelet recovery, response to first line therapy, relapse, thrombosis, and any adverse reactions to therapy. After review, revision, and approval by the entire panel, the treatment domain consisted of 23 PICO formatted questions related to the management of ITP, including transfusion. In the final manuscript, some PICO questions were merged for brevity and clarity. In addition, 19 questions were formulated that could not readily use the PICO format. Termed non-PICO questions, these additional queries were generated to minimize gaps in the guidelines that were ultimately intended to inform clinical practice. Furthermore, questions were formulated regarding treatment goals and definitions of treatment response.

Evidence evaluation methods

The 19 treatment domain evidence evaluators were assigned on average 2 PICO questions, with at least 2 evaluators investigating each question. The evaluation process consisted of 4 main steps: 1. Selection of

literature from the article database, as described above, to answer the PICO question(s) 2. Confirmation and refinement of the selected literature by domain chairs. 3. Evaluation of the literature to answer the question 4. Preparation of a draft summary statement answering the question. A detailed instruction guide was sent to the evaluators (Supporting information 3) with their assigned PICO questions. The evaluators accessed the selected literature via an online shared document folder and were encouraged to contact the domain chairs for any questions or clarification on the review process.

The evaluators were provided with an electronic data entry spreadsheet (Supporting information 4-5) to aid standardized data extraction and facilitate evidence evaluation and grading. They were also given access to information provided in the GRADE handbook (https://gdt.gradepro.org/app/handbook/handbook.html) and a modified handbook specific for ITP. Evidence evaluators summarized their final responses to each PICO question using a standardized form (Supporting information 6). Evidence evaluators were invited to participate in an online meeting with the domain chairs to review the evaluation files and ask specific questions regarding their use. The evaluators' data extraction tools and summary files were submitted for domain chairs' review and synthesis into a single consensus response to each PICO question. Responses were collated, reviewed, and then subjected to 2-3 iterative rounds of Delphi surveys with post-survey review, discussion, and revision until consensus, or near complete consensus, was reached. Unresolved differences of opinion are indicated in the text of the Consensus Statement.

Responses to non-PICO questions and suggestions for treatment response guidelines were obtained from panelists and evidence evaluators via anonymous surveys, compiled by panelists, and then revised amongst panelists with reference to any relevant literature until consensus was reached.

Production of Consensus Statement

The Consensus Statement was drafted and edited by BK, DNL, RG, and AM. The draft Consensus statement was then revised by all panelists prior to submission to the ACVIM for review by all members. The draft Consensus Statement was also submitted to the European College of Veterinary Internal Medicine, American College of Veterinary Emergency and Critical Care, European College of Veterinary Emergency and Critical Care, Association of Veterinary Hematology and Transfusion Medicine, and Veterinary and Comparative Clinical Immunology Society for solicitation of comments from members. Consistent feedback from these colleges was then utilized by the panelists to produce the final Consensus Statement.

Table S1. Comprehensive Overview of Databases Searched on May 25, 2021

Platform / Database(s) / Number Results	Search strategy
Clarivate Analytics Web of Science Core Collection CAB Abstracts BIOSIS Citation Index BIOSIS Previews KCI Korean Journal Database Russian Science Citation Index SciELO Citation Index Zoological Record **832**	1. TS=(dog OR dogs OR cat OR cats OR canine OR "canis familiaris" OR feline OR "felis catus") 2. TS=("immune thrombocytop*eni*" OR "immune mediated thrombocytop*eni*" OR "idiopathic thrombocytop*eni*" OR "megakaryocyte aplasia" OR "megakaryocyt* hypoplasia" OR "amegakaryocyt* thrombocytop*eni*" OR "Werlhof* Disease" OR "autoimmune thrombocytop*eni*" OR "immune mediated h*emolytic anemia" OR "Evan* Syndrome" OR "anti platelet antibod*" OR "antiplatelet antibod*" OR "platelet bound antibod*" OR "platelet associated antibod*" OR "platelet associated immunoglobulin*" OR "anti platelet immunoglobulin*" OR "antiplatelet immunoglobulin*" OR "platelet bound immunoglobulin*") 3. #1 AND #2
PubMed Medline **436**	1. "Dogs"[Mesh] OR "Cats"[Mesh] 2. Dog[Title/Abstract] OR Dogs[Title/Abstract] OR canine[Title/Abstract] OR canis familiaris[Title/Abstract] 3. cat[Title/Abstract] OR cats[Title/Abstract] OR feline[Title/Abstract] OR felis catus[Title/Abstract] 4. #1 OR #2 OR #3 5. "Purpura, Thrombocytopenic, Idiopathic"[Mesh] 6. Immune Thrombocytopenia[Title/Abstract] OR immune mediated thrombocytopenia[Title/Abstract] OR idiopathic thrombocytopeni*[Title/Abstract] OR immune mediated thrombocytopenia[Title/Abstract] OR idiopathic thrombocytopeni*[Title/Abstract] OR megakaryocyte aplasia[Title/Abstract] OR Megakaryocyte hypoplasia[Title/Abstract] OR amegakaryocytic thrombocytopenia[Title/Abstract] OR Werlhof* Disease[Title/Abstract] OR Autoimmune thrombocytopeni*[Title/Abstract] OR Immune mediated thrombocytopeni*[Title/Abstract] OR Immune thrombocytopeni*[Title/Abstract] OR Immune mediated hemolytic anemia[Title/Abstract] OR immune mediated haemolytic anaemia[Title/Abstract] OR "Evans Syndrome" [Supplementary Concept] OR Evans syndrome[Title/Abstract] OR anti platelet antibod*[Title/Abstract] OR antiplatelet antibod*[Title/Abstract] OR platelet bound antibod*[Title/Abstract] OR platelet associated antibod*[Title/Abstract] OR Platelet associated immunoglobulin*[Title/Abstract] OR anti platelet immunoglobulin*[Title/Abstract] OR antiplatelet immunoglobulin*[Title/Abstract] OR platelet bound immunoglobulin*[Title/Abstract] 7. #5 OR #6 8. #4 AND #7
Elsevier Scopus **568**	1. TITLE-ABS-KEY(dog OR dogs OR cat OR cats OR canine OR {canis familiaris} OR feline OR {felis catus}) 2. TITLE-ABS-KEY ("immune thrombocytop*eni*" OR "immune mediated thrombocytop*eni*" OR "idiopathic thrombocytop*eni*" OR "megakaryocyte aplasia" OR "megakaryocyte hypoplasia" OR

	"amegakaryocytic thrombocytop*eni*" OR "Werlhof* Disease" OR "autoimmune thrombocytop*eni*" OR "immune mediated h*emolytic anemia" OR "Evan* Syndrome" OR "anti platelet antibod*" OR "antiplatelet antibod*" OR "platelet bound antibod*" OR "platelet associated antibod*" OR "platelet associated immunoglobulin*" OR "anti platelet immunoglobulin*" OR "antiplatelet immunoglobulin*" OR "platelet bound immunoglobulin*") 3. #1 AND #2
EBSCO Agricola **178**	1. TI ((dog OR dogs OR cat OR cats OR canine OR "canis familiaris" OR feline OR "felis catus")) OR AB ((dog OR dogs OR cat OR cats OR canine OR "canis familiaris" OR feline OR "felis catus")) OR SU ((dog OR dogs OR cat OR cats OR canine OR "canis familiaris" OR feline OR "felis catus")) 2. TI (("immune thrombocytop#eni*" OR "immune mediated thrombocytop#eni*" OR "idiopathic thrombocytop#eni*" OR "megakaryocyte aplasia" OR "megakaryocyte hypoplasia" OR "amegakaryocytic thrombocytop#eni*" OR "Werlhof* Disease" OR "autoimmune thrombocytop#eni*" OR "immune mediated thrombocytop#eni*" OR "immune mediated h#emolytic anemia" OR "Evan* Syndrome" OR "anti platelet antibod*" OR "antiplatelet antibod*" OR "platelet bound antibod*" OR "platelet associated antibod*" OR "platelet associated immunoglobulin*" OR "anti platelet immunoglobulin*" OR "antiplatelet immunoglobulin*" OR "platelet bound immunoglobulin*")) OR AB (("immune thrombocytop#eni*" OR "immune mediated thrombocytop#eni*" OR "idiopathic thrombocytop#eni*" OR "megakaryocyte aplasia" OR "megakaryocyte hypoplasia" OR "amegakaryocytic thrombocytop#eni*" OR "Werlhof* Disease" OR "autoimmune thrombocytop#eni*" OR "immune mediated thrombocytop#eni*" OR "immune mediated h#emolytic anemia" OR "Evan* Syndrome" OR "anti platelet antibod*" OR "antiplatelet antibod*" OR "platelet bound antibod*" OR "platelet associated antibod*" OR "platelet associated immunoglobulin*" OR "anti platelet immunoglobulin*" OR "antiplatelet immunoglobulin*" OR "platelet bound immunoglobulin*")) OR SU (("immune thrombocytop#eni*" OR "immune mediated thrombocytop#eni*" OR "idiopathic thrombocytop#eni*" OR "megakaryocyte aplasia" OR "megakaryocyte hypoplasia" OR "amegakaryocytic thrombocytop#eni*" OR "Werlhof* Disease" OR "autoimmune thrombocytop#eni*" OR "immune mediated thrombocytop#eni*" OR "immune mediated h#emolytic anemia" OR "Evan* Syndrome" OR "anti platelet antibod*" OR "antiplatelet antibod*" OR "platelet bound antibod*" OR "platelet associated antibod*" OR "platelet associated immunoglobulin*" OR "anti platelet immunoglobulin*" OR "antiplatelet immunoglobulin*" OR "platelet bound immunoglobulin*")) 3. #1 AND #2
ProQuest Dissertations and Theses Global **24**	1. noft(dog OR dogs OR cat OR cats OR canine OR "canis familiaris" OR feline OR "felis catus") 2. noft(("immune thrombocytop*eni*" OR "immune mediated thrombocytop*eni*" OR "idiopathic thrombocytop*eni*" OR "megakaryocyte aplasia" OR "megakaryocyte hypoplasia" OR "amegakaryocytic thrombocytop*eni*" OR "Werlhof* Disease" OR "autoimmune thrombocytop*eni*" OR "immune mediated h*emolytic anemia" OR "Evan* Syndrome" OR "anti platelet antibod*" OR

	"antiplatelet antibod*" OR "platelet bound antibod*" OR "platelet associated antibod*" OR "platelet associated immunoglobulin*" OR "anti platelet immunoglobulin*" OR "antiplatelet immunoglobulin*" OR "platelet bound immunoglobulin*")) 3. #1 AND #2
CAB Direct CAB Direct **564**	1. title:((dog OR dogs OR cat OR cats OR canine OR "canis familiaris" OR feline OR "felis catus")) OR ab:((dog OR dogs OR cat OR cats OR canine OR "canis familiaris" OR feline OR "felis catus")) OR subject:((dog OR dogs OR cat OR cats OR canine OR "canis familiaris" OR feline OR "felis catus")) 2. (title:(("immune thrombocytop*eni*" OR "immune mediated thrombocytop*eni*" OR "idiopathic thrombocytop*eni*" OR "megakaryocyte aplasia" OR "megakaryocyte hypoplasia" OR "amegakaryocytic thrombocytop*eni*" OR "Werlhof* Disease" OR "autoimmune thrombocytop*eni*" OR "immune mediated h*emolytic anemia" OR "Evan* Syndrome" OR "anti platelet antibod*" OR "antiplatelet antibod*" OR "platelet bound antibod*" OR "platelet associated antibod*" OR "platelet associated immunoglobulin*" OR "anti platelet immunoglobulin*" OR "antiplatelet immunoglobulin*" OR "platelet bound immunoglobulin*"))) OR (ab:(("immune thrombocytop*eni*" OR "immune mediated thrombocytop*eni*" OR "idiopathic thrombocytop*eni*" OR "megakaryocyte aplasia" OR "megakaryocyte hypoplasia" OR "amegakaryocytic thrombocytop*eni*" OR "Werlhof* Disease" OR "autoimmune thrombocytop*eni*" OR "immune mediated h*emolytic anemia" OR "Evan* Syndrome" OR "anti platelet antibod*" OR "antiplatelet antibod*" OR "platelet bound antibod*" OR "platelet associated antibod*" OR "platelet associated immunoglobulin*" OR "anti platelet immunoglobulin*" OR "antiplatelet immunoglobulin*" OR "platelet bound immunoglobulin*"))) OR (subject:(("immune thrombocytop*eni*" OR "immune mediated thrombocytop*eni*" OR "idiopathic thrombocytop*eni*" OR "megakaryocyte aplasia" OR "megakaryocyte hypoplasia" OR "amegakaryocytic thrombocytop*eni*" OR "Werlhof* Disease" OR "autoimmune thrombocytop*eni*" OR "immune mediated h*emolytic anemia" OR "Evan* Syndrome" OR "anti platelet antibod*" OR "antiplatelet antibod*" OR "platelet bound antibod*" OR "platelet associated antibod*" OR "platelet associated immunoglobulin*" OR "anti platelet immunoglobulin*" OR "antiplatelet immunoglobulin*" OR "platelet bound immunoglobulin*"))) 3. #1 AND #2

Figure S1: PRISMA flow diagram representing studies included for ITP treatment

Identification

Records identified from database searching (n = 2602)

Records from each database:
Agricola (n = 178)
CAB Direct (n = 564)
MEDLINE (n = 436)
ProQuest Dissertations and Theses Global (n = 24)
Scopus (n = 568)
Web of Science databases: (n = 832)
- BIOSIS Citation Index
- BIOSIS Previews
- CAB Abstracts and Global Health
- KCI Korean Journal Database
- Russian Science Citation Index
- Web of Science Core Collection
- Zoological Record

→ Duplicate records removed (n = 1447)

Screening

Records screened (n = 1155) → Records excluded (n = 568)

Reports sought for retrieval (n = 587) → Reports not retrieved (n = 6)

Reports assessed for eligibility (n = 581) → Reports excluded (n = 308)

Reasons include:
- Wrong study type (n = 129)
- Duplicates (n = 100)
- Not about ITP (n = 71)
- Not about dogs/cats (n = 8)

Included – Treatment

Studies included after screening (n = 273)

Additional studies identified by treatment subgroup (n = 15)

Identification methods include:
- Scopus forward citation search (n = 11)
- Evidence evaluator knowledge (n = 4)

Total studies included for ITP treatment (n = 288)