Journal of Diagnostic Medical Sonography
Author's Manual

Effective March 2020
# TABLE OF CONTENTS

I. Journal Information ............................................................................................................................. 4
   About the JDMS ................................................................................................................................. 4
   Journal Indexing and Circulation ........................................................................................................ 4
   Copyright ............................................................................................................................................ 4
   Authorization and Acknowledgement ................................................................................................. 5
   Research Ethics and HIPAA Privacy Standards ................................................................................. 5
   Peer Review ....................................................................................................................................... 6
   Author Resources .............................................................................................................................. 6

II. Content of the JDMS ......................................................................................................................... 7
   Original Research .............................................................................................................................. 7
   Literature Reviews ............................................................................................................................. 7
   Case Studies ...................................................................................................................................... 8
   Symposia and Society News .............................................................................................................. 8
   Editorials and Letters to the Editor ...................................................................................................... 8

III. Manuscript Preparation and Submission ........................................................................................... 9
   Preparing the Manuscript ................................................................................................................... 9
   JDMS Style ...................................................................................................................................... 10
   Figures, Images, and Tables ............................................................................................................. 11
   Supplemental Audio/Video Files ....................................................................................................... 11

IV. Peer Review Timeline and Acceptance .......................................................................................... 12

V. Author Responsibilities and Rights .................................................................................................. 12

VI. JDMS CME Credit Policy ................................................................................................................ 13

Appendix A: Guide for New Authors..................................................................................................... 14
Appendix B: Guidelines for Student Submissions ................................................................................. 25
I. JOURNAL INFORMATION

ABOUT THE JDMS

The peer-reviewed Journal of Diagnostic Medical Sonography was first published in January 1985 by the Society of Diagnostic Medical Sonography. Six issues are published each year, which feature the latest research across all sonography specialties. The JDMS provides a place for sonographer researchers, educators, and clinicians to share their knowledge, expertise, scanning tips, interesting cases and images and by doing so contributes to the growth of the sonography profession and to their own career. An attempt is made to publish articles that cover a variety of topics so that all sonographers, regardless of specialty and work environment, will find material of interest in each issue.

The SDMS Board of Directors appoints the Editor-in-Chief for a 3-year term, with the mutual option of renewal. Associate Editor(s) assist the Editor-in-Chief by soliciting articles, mentoring authors, and reviewing manuscripts. The Editor-in-Chief structures journal content and appoints members to the Editorial Board, which is composed of sonographers, physicians and other scholars within the sonography field around the world. Individuals who feel qualified to serve on the Editorial Board or who wish to participate as reviewers are invited to sign up on the SDMS website or express interest to the Editor-in-Chief at editor@jdms.org.

The SDMS offers continuing medical education credit (CME) for some articles appearing in each issue. Individuals who are interested in acquiring these CME credits may complete a post-test online. The JDMS makes every attempt to provide suitable CME opportunities across all specialty areas.

JOURNAL INDEXING AND CIRCULATION

The JDMS is currently indexed with CINAHL, the Emerging Sources Citation Index (ESCI), EMBASE/Excerpta Medica, InfoTrac (full text), and Scopus. It has a total circulation of over 35,000 subscribers.

COPYRIGHT

The SDMS owns the copyright on all material published in JDMS and authors must sign a transfer of copyright statement prior to publication. The Editor provides a transfer of copyright form to corresponding author when manuscript review is complete. Forms may also be obtained by contacting the JDMS office at jdms@sdms.org.

As part of the submission process you will be required to warrant that you are submitting your original work, that you have the rights in the work, and that you have obtained and can supply all necessary permissions for the reproduction of any copyright works not owned by you, that you are submitting the work for first publication in the Journal and that it is not being considered for publication elsewhere and has not already been published elsewhere.

A list of all SAGE Publishing Policies can be found at https://uk.SAGEpub.com/en-gb/nam/publishing-policies.
AUTHORIZATION AND ACKNOWLEDGEMENT

SAGE and the JDMS take plagiarism and image integrity very seriously. Submitted articles may be checked with duplication-checking software. Where an article is found to have plagiarized other work or included third-party copyrighted material without permission or with insufficient acknowledgement, or where the authorship of the article is contested, we reserve the right to take action including, but not limited to: publishing an erratum or corrigendum (correction); retracting the article; taking up the matter with the head of department or dean of the author's institution and/or relevant academic bodies or societies; or taking appropriate legal action.

The International Committee of Medical Journal Editors defines the role of authors and contributors. All contributors who do not meet the criteria for authorship, including professional writing assistance or technical help, should be listed in the Acknowledgements section. Funding sources should also be acknowledged. A ‘Declaration of Conflicting Interests’ statement should also be included at the end of your manuscript, or you may state that ‘The Author(s) declare(s) that there is no conflict of interest’.

If material has been previously published it is not generally acceptable for publication in a SAGE journal. However, there are certain circumstances where previously published material can be considered for publication. Please refer to the guidance on the SAGE Author Gateway or if in doubt, contact the Editor.

For previously published figures or other information, the author must obtain a written release from the original copyright holder. The permission should be uploaded as a permissions file in the manuscript submission system. A standard Request for Permission to Reprint is available on the SDMS website.

RESEARCH ETHICS AND HIPAA PRIVACY STANDARDS

Medical research involving human subjects must be conducted according to the World Medical Association Declaration of Helsinki. In addition, submitted manuscripts should conform to the ICMJE Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals, with all papers reporting animal and/or human studies stating in the methods section that the relevant Ethics Committee or Institutional Review Board provided (or waived) approval. Please ensure that you have provided the full name and institution of the review committee, in addition to the approval number. For research articles, authors are also required to state in the methods section whether participants provided informed consent and whether the consent was written or verbal.

Please also refer to the ICMJE Recommendations for the Protection of Research Participants.

All healthcare researchers must be familiar with the HIPAA privacy rule and its implications for recruitment of human subjects, protection of personal health information, and disclosure of scientific results. Regardless of specific IRB processes, it is necessary for all researchers to obtain written HIPAA authorization before publishing papers or making presentations containing Personal Health Information (PHI).

A full summary of the rule is located on the US Department of Health and Human Services site: http://www.hhs.gov/hipaa/for-professionals/privacy/laws-regulations/
Any research results containing patient-level data should be reviewed to ensure that the eighteen HIPAA identifiers have been removed, and whether the information being published could be combined with other publicly-available information to reveal the identity of a participant. Materials involving photographs, rare diseases, or highly publicized cases should be reviewed with particular care. In general, it is best to include the minimum amount of patient-specific information that is possible while still conveying details relevant to the findings, and to be broad in reporting (e.g. female in late twenties as opposed to 28 year old female).

**PEER REVIEW**

The JDMS follows a scholarly, double-blinded peer review process. The Editor or members of the Editorial Board may occasionally submit their own manuscripts for possible publication in the journal. In these cases, the peer review process will be managed by alternative members of the Board and the submitting Editor/Board member will have no involvement in the decision-making process.


**AUTHOR RESOURCES**

**SAGE EDUCATION**

A free online course on How to Get Published is available from SAGE at [https://campus.sagepub.com/how-to-get-published](https://campus.sagepub.com/how-to-get-published).

**ENGLISH LANGUAGE EDITING SERVICES**

Authors seeking assistance with English language editing, translation, or figure and manuscript formatting to fit the journal’s specifications should consider using SAGE Language Services. Visit SAGE Language Services on our Journal Author Gateway for further information.

**ARTICLE PROMOTION**

Publication is not the end of the process! You can help disseminate your paper and ensure it is as widely read and cited as possible. The SAGE Author Gateway has numerous resources to help you promote your work. Visit the Promote Your Article page on the Gateway for tips and advice, or learn how to proactively Help Readers Find Your Article through search engines.

Also available for reference:

- 5 Features of a Highly Cited Article
- Promoting your Paper (video)

In addition, you can maximize your article’s impact with Kudos, a free service that allows authors to explain, enrich, share, and measure the impact of their article.
II. CONTENT OF THE JDMS

The composition of JDMS continuously evolves to reflect development in the field of sonography and the needs of the readership.

ORIGINAL RESEARCH

An original research project is an extensive project that uses scientific methods to support the findings. The project begins by asking a research question or stating a hypothesis. Subjects may include critical reviews of current research or clinical practice, descriptions of pathology or medical progress, analysis of sonography education, social science related to health behaviors, current technology, health care management, and others.

A typical Original Research manuscript should include the following sections:

I. Structured Abstract (Objectives, Materials & Methods, Results, Conclusion)
II. Keywords (MeSH terms preferred)
III. Introduction (concise review of existing literature, objective, and research question)
IV. Methods (including inclusion/exclusion criteria, statistical and power analyses)
V. Results (including descriptive data and inferential data analysis)
VI. Discussion (compare/contrast results with literature, to what degree was research question answered, and study limitations)
VII. Conclusion (what was uncovered, and how it impacts the journal audience)
VIII. Key Takeaways (3-4 most important implications for clinical practice)

Methods matter! See Ten Common Statistical Mistakes to Watch Out For When Writing.

LITERATURE REVIEWS

A literature review article summarizes the pertinent research findings that have been reported in textbooks and journal articles. It provides a basic description of the topic being reviewed as well as current findings and theories. The value of review articles is their synthesis of the most current information. It is especially important with Literature Reviews to request permission from authors of original publications to reprint or reuse images or content where appropriate.

A typical Literature Review manuscript should include the following sections:

I. Structured Abstract (Objectives, Materials & Methods, Results, Conclusion)
II. Keywords (MeSH terms preferred)
III. Introduction (concise review of existing literature, objective, and research question)
IV. Methods (how did you search, number of results, vetting process, degree of rigor)
V. Results (including table with articles reviewed, author(s), year, summary of main point)
VI. Discussion (compare/contrast research, explain conclusions from comparison, and identify limitations, methodological problems, or gaps)
VII. Conclusion (what was uncovered, and recommendations for future research)
VIII. Key Takeaways (3-4 most important implications for clinical practice)
CASE STUDIES

Written accounts of the impact of sonography on patients with rare pathology, or unusual combinations of pathology are popular contributions to the *JDMS*. Cases that include excellent examples of normal anatomy, or the first reported visualization of normal anatomic structures, or the use of new technology may also be reported. Sonograms that clearly demonstrate the sonographic findings are included, as well as an account of the patient's symptoms, other diagnostic findings, treatment, prognosis, and a brief discussion of the disease. Most case studies should provide a comparison of the reported case to those that have been reported previously.

A typical Case Study manuscript should include the following sections:

I. Unstructured Abstract
II. Keywords (MeSH terms preferred)
III. Introduction (pathology, incidence/prevalence or other facts, patient clinical history/symptoms)
IV. Case Report (lab results, other imaging, sonographic findings, procedures, outcome)
V. Discussion (normal vs. pathology, clinical signs/symptoms, disease progression, treatments/outcomes, prognosis, value of sonography vs. other imaging methods)
VI. Conclusion (what was uncovered, and recommendations for future research)
VII. Key Takeaways (3-4 most important implications for clinical practice)

SYMPOSIA AND SOCIETY NEWS

*JDMS* may publish symposia, society news, or other content in each of its issues. Symposia articles typically fall under “Energizing Education,” “Professional Issues,” “Policy”, and “Advances in Technology”. These manuscripts should be focused on novel approaches to teaching, universal issues influencing the profession, the impact of policy changes, or advancements in ultrasound technology. Additional scholarly content of interest to the profession, such as white papers, clinical protocols, abstracts, interviews, supplements, or other items may be considered. Manuscripts may be Editor or peer-reviewed for relevance, accuracy and timeliness.

EDITORIALS AND LETTERS TO THE EDITOR

**Editorials and Guest Editorials** are written by a *JDMS* Editor or invited guest and express an idea that is thought provoking and relevant to *JDMS* readers. The Editor-in-Chief may request Guest Editorials, or sonographers or physicians who want to make readers aware of an observation, idea, or trend may submit unsolicited essays (subject to internal review).

**Letters to the Editor** may be submitted by readers wishing to respond to articles appearing in the journal. They are published at the Editor’s discretion and edited for style.
III. MANUSCRIPT PREPARATION AND SUBMISSION

The JDMS utilizes SAGE Publications’ manuscript submission system, SAGETrack (powered by Scholar One), for electronic manuscript submission. Definitions below are provided for guidance. SAGE also offers an online Journal Author Gateway with additional tips and information.

PREPARING THE MANUSCRIPT

The manuscript should be prepared using Microsoft Word and uploaded digitally through SAGETrack. The manuscript submission process will require multiple separate files:

1. Title page, which should include:
   a. Title of the paper
   b. Names of all authors and their hospital or work affiliation(s)
   c. Address for correspondence, phone number, and email addresses for all authors
   d. Funding information, if appropriate
   e. Acknowledgements (if appropriate)

2. Main document, which should not include any identifying author or sponsor information
   a. Abstract (approximately 150 words, structured for Original Research and Literature Review manuscripts)
   b. Three to five keywords
   c. Main body of at least 1500+ words which conforms toAMA Style(11th edition - see above for required sections based on manuscript type)
   d. References
      i. Minimum 10 inAMA format, numbered consecutively and all cited within the text
      ii. Should be recent, relevant, and peer-reviewed
   e. All tables, summarized and in editable format (if included)
   f. Legends for all images, videos, tables and figures, each of which should be called out within the text (including online-only videos and supplemental material)
   g. Key Takeaways callout box (bulleted list of top 3-4 takeaways for clinical practice)

3. Images, Figures and Videos, including any required arrows or labels, uploaded in digital format and with captions for each (more details on the SAGE website under Preparing Your Manuscript). Rasterized based files (i.e. with .tiff or .jpeg extension) require a resolution of at least 300 dpi (dots per inch). Line art should be supplied with a minimum resolution of 800 dpi.

4. Written permission to use previously published figures, tables, or text if required

The main paper should be typed double-spaced using Microsoft Word, with all pages numbered. Each page of the main document should be numbered. PDF file format is not accepted for peer review.

A Contributor Form will be required of the corresponding author later in the process and will be sent by email after manuscript acceptance.
JDMS STYLE

JDMS follows the American Medical Association (AMA) *Manual of Style*. The following style points can serve as a *general* guide.

1. Most common prefixes and common suffixes should be joined without a hyphen. (Example: postembryonic, intrapelvic, preoperative)
2. Abbreviated terms should be spelled out the first time they are used. Latin terms such as e.g., i.e., et al., and etc. should be abbreviated with periods and set in Roman type.
3. Follow recommended style for abbreviations of units of measure, with the exception of liters, Gauss, and Tesla. (Liters should be spelled out in text except when used in virgule constructions.) Common examples: C, cc, cm, g, kHz, MHz, mm, mmHg.
4. Omit the suffix "-al" in adjectives unless its absence changes the meaning of the word. (Example: acoustic, anatomic, neurologic, obstetric, theoretic)
5. Spell out and italicize genus and species at first mention (Example: *Escherichia coli*, *Treponema pallidum*). After the first mention, abbreviate genus name without a period (Example: *E coli*, *T pallidum*).
6. Spell out all numbers from one through ten and use Arabic numbers for all numbers greater than ten, with two exceptions: if any number in a category is greater than ten, all units in that category should be in Arabic numbers. Units of measure always appear in Arabic numbers.
7. Spell out all units of time (Example: seconds, minutes, hours) except in virgule constructions.
8. Avoid "sexist" classifications; use of “they” rather he/she is preferred.

Certain terms that are specific to diagnostic ultrasound are not addressed in the *AMA Manual of Style*; therefore, we have adopted formats common to practice and literature. These terms are listed below:

- **bandwidth** - Close up space between words.
- **B-mode and M-mode echocardiography** - Hyphenate and use capitalization as shown here.
- **conceptuses** - The plural form should be spelled in this way.
- **disk** - Preferable to disc.
- **Doppler** - Capitalize as shown.
- **examination** - Spell out the full word in text.
- **Gauss** - Spell out this unit of measure.
- **gravida 2, para 1** - Abbreviate these terms and use Arabic numbers as shown.
- **gray-scale** - Hyphenate as shown.
- **linear-array** - Hyphenate as shown.
- **real-time** - Hyphenate as shown.
- **Sonographers** - Preferable to technologists, technicians, or ultrasonographers.
- **Sonography** - refers to imaging. Preferable to diagnostic ultrasonography or diagnostic ultrasound.
- **Tesla** - Spell out this unit of measure.
- **2D** - Two-dimensional should be abbreviated with the Arabic number and a capital letter.
- **waveform** - Close up space between words.
- **x-ray** - Hyphenate as shown.
FIGURES, IMAGES, AND TABLES

Figures, images, and illustrations will be accepted in one of two formats:

1. Embedded within the Main Document, including captions, on the same page where referenced;
2. Uploaded as separate image or figure files, named in the same manner (i.e. Figure 1, Figure 2, etc.) as referenced in the text with captions included.

During the upload process authors will be asked to include appropriate figures, images, and tables, if applicable, that are typically labeled numerically as Figure 1, Figure 2, etc. and cited in numerical order in the text. The general term “Figure” may be used throughout the manuscript if a variety of illustration types are used, such as tables, diagrams, images, etc.

Figures should be professionally drawn or photographed; freehand or type-written lettering will not be accepted. Sonograms, x-rays, and other images should be of diagnostic quality and structures should be labeled clearly with arrows or letters explained in the legend. **Personal information (i.e. patient name, medical record number, date, location, hospital number) must be cropped from the figure.** It is the responsibility of the author to add arrows, labels, and delete personal information.

Arrows and labels must be added to the original image file prior to embedding in the Word document. Each figure and/or table must have a caption that provides enough information to allow the item to be clearly identified. Captions should be a complete set of sentences that describe the figure and or table.

Tables should be used to summarize data and should be cited in numerical order in the text. Tables should be typed (editable) and provided together at the end of the Main Document. For borrowed tables, the author must obtain permission from the copyright holder. In a footnote to the table, the author should cite authors, article, journal, etc., as in references or indicate reference number if cited in a reference list. If material for a table is modified or adapted, no permission is required, but the source should nevertheless be cited in a footnote to the table.

Legend information should be summarized onto a single page and uploaded as part of the main document, as well as input for each figure during file upload in the SAGETrack system.

SUPPLEMENTAL AUDIO/VIDEO FILES

Audio or video files may be uploaded with the submission to support the evidence outlined in the manuscript or provide supplemental material to the reader. Audio/video file types include .MOV, .MP4, and .MPEG. Video files should be of reasonable time length. While there is no size limit, when the size of a single file is bigger than 10MB, some users may experience problems when downloading.

Free or native tools for video editing such as iMovie, Powerpoint, etc should be used to edit for size, length, and to remove any identifying patient information before the video is submitted.

**All supplemental material and video files should be called out/referenced within the manuscript.**

When uploading supplemental videos through the SAGETrack website, select the Supplementary File type, and append ‘supplemental_video’ to the filename and number based on order of viewing.
IV. PEER REVIEW TIMELINE AND ACCEPTANCE

After the manuscript is submitted, the Editor-in-Chief will acknowledge receipt and the manuscript will begin the peer review process in accordance with the following approximate timeline:

I. Within 1 week - an initial review is conducted for relevance to the JDMS and manuscript quality. At this stage, a manuscript may be accepted for peer review, rejected, or unsubmitted pending missing information or required changes to meet JDMS guidelines.

II. Within 6-10 weeks – once the manuscript is accepted for peer review and all required components are received, it is assigned to the Editor-in-Chief or Associate Editor to be managed through the peer review process. At least three peer reviewers who are experts in the field review each manuscript and provide feedback, which is then relayed to the author(s) along with a decision of Accept, Minor Revisions Needed, Major Revisions Needed, or Reject.

III. If revisions are required, submitted changes are reviewed within 4-6 weeks.

IV. Once the manuscript accepted and the contributor form is received, the article is submitted to the publisher for copyediting and available online within 3-4 weeks. It is typically included within the next available print issue, unless it is held to be included in a dedicated issue on a relevant clinical topic.

All authors are provided with a copy of the journal in which their article is published. Authors also may choose to purchase reprints by contacting SAGE Publications at reprint@sagepub.com.

V. AUTHOR RESPONSIBILITIES AND RIGHTS

Please refer to the Ethics & Responsibility section of our Journal Gateway for up-to-date information on publication ethics and on SAGE’s publishing policies.

For a reminder of the rights authors retain in their articles and SAGE’s, please visit the Copyright and Permissions section of our Journal Gateway.

- You may do whatever you wish with the version of the article you submitted to the journal (Version 1).
- Once the article has been accepted for publication, you may post the accepted version (Version 2) of the article on your own personal website, your department’s website or the repository of your institution without any restrictions.
- You may use the published article (version 3) for your own teaching needs or to supply on an individual basis to research colleagues, provided that such supply is not for commercial purposes.
- You may use the article (version 3) in a book authored or edited by you at any time after publication in the journal. This does not apply to books where you are contributing a chapter to a book authored or edited by someone else.
• You may not post the published article (version 3) on a website or in a repository without permission from SAGE.

• When posting or re-using the article please provide a link to the appropriate DOI for the published version of the article on SAGE Journals (http://online.SAGEpub.com)

• Further information on copyright and permissions inquires can be located on the following webpages:
  o http://www.SAGEpub.com/authors/journal/permissions.sp
  o For additional queries, email mailto:permissions@SAGEpub.com or visit RightsLink® at https://SAGEpub.com/journals-permissions

VI. JDMS CME CREDIT POLICY

Published authors may be eligible to receive SDMS CME credit once an accepted manuscript is slated to be published in a JDMS issue.

**Articles with Accompanying SDMS CME Tests:** JDMS Authors will automatically receive three (3) times the number of SDMS CME credits that the SDMS CME test is worth for an accepted article. The SDMS CME credit will be reflected on their SDMS CME Transcript before the article is published in the scheduled printed JDMS issue of the JDMS.

**Articles without Accompanying SDMS CME Tests:** JDMS Authors will receive 0.75 SDMS CME credits for an accepted article published which does not have an accompanying SDMS CME test. SDMS CME credits for those articles will be included on the Authors’ SDMS CME Transcript by November 30 annually.

Authors do not receive SDMS CME credit for articles not accepted for publication.

All SDMS CME credits are granted to authors on published manuscripts who are SDMS members at the time CME credits are awarded. SDMS CME credit is not available to non-SDMS members.
GETTING STARTED

Writing is a learned skill. Even the best writers require continuous work to refine their skills and profit from the peer review process. The more you practice writing, the more skill you will develop. The first, most important step, to writing is first having the desire to convey a message to the reader.

One way to become a better writer is to become a better reader. In reading medical literature, you can gain insight on how scientific articles are constructed. You will notice that each type of article has consistent elements, and more importantly, you will become familiar with the language used in scientific writing. In addition to improving your writing, reviewing current literature will generate ideas for your projects. This exercise can help you find the gaps in the current knowledge which can spark new ideas for your writing. As you review the current literature, be sure to maintain the bibliographic information because you will need it later when you complete the reference page of your manuscript.

There are many hints on how to begin writing for those who are intimidated by it. Oftentimes, people who do not like to write do well at expressing themselves orally. In this case, you can pretend you are discussing the topic with a friend and record the conversation. This will provide a framework from which to write a paper. Another approach that works with some people is to write down every thought relating to the topic, in a stream of consciousness. Then after letting the list sit for a day or two, go back and delete items that are irrelevant. The remaining items can then be organized into an outline for a paper. Writing from a detailed outline is a key component of an organized manuscript.

You may have noticed common themes in your literature survey, and those themes may become your section headings. Section headings are all ideas or themes that will support your message, and the number of headings that you have will depend on the topic, how deeply you wish to explore it, and how much literature you have to support it. In some cases, writing the conclusion first is helpful, because it summarizes the idea you wish to communicate. By knowing how you want your paper to end, you may have a clearer idea of what you should write in the body of the paper to prove your conclusion.

Overcoming the fear of writing also involves dealing with the fear of rejection. To assist in this, feedback is provided to all authors, regardless of previous history of writing or the Journal. The feedback helps them prepare the current manuscript for publication and to gain knowledge for future submissions. Reviewers and editors do not wish to reject articles, and would much rather ask for major revisions that will allow the submission to be published in a later form. Authors may write to the JDMS Editor to request that a mentor be assigned if they need assistance in making the recommended changes.

“Defeat is not the worst of failures. Not to have tried is the true failure.”

-George Edward Woodberry (American literary critic and poet)
WRITING EFFECTIVELY

1. Organization and editing is the key to good writing. Begin with an outline that follows a logical order. Suggested outlines for each manuscript type accepted by the JDMS can be found within this document.

2. Make a sentence from each topic on the outline, keeping the main headings and subheadings together in one paragraph. Headings should indicate when you are switching to a new main topic.

3. In a research paper, write the paper before writing the abstract and title.

4. Writing tips:
   a. Follow a logical progression in your paper.
   b. Use simple words rather than complex ones. Omit adjectives and adverbs that are not necessary, such as very, extremely, excessively, etc.
   c. Paragraphs should contain a topic sentence and at least 2-5 additional sentences that support the information.
   d. Be aware of paragraphs (and sentences) that are excessively long or contain too many ideas. Keep your sentences short and simple.
   e. Maintain an active, consistent voice and tense throughout the paper and avoid using first person. In scientific writing, the third person voice should be used.
   f. Ensure that your subject and verbs agree as well as your nouns and pronouns.
   g. Numbers that start sentences and ordinals should be spelled. Otherwise, you may use the Arabic numbers to express numerical information (see JDMS Style).
   h. Use correct sonographic terminology.

5. Be prepared to revise the paper as many times as necessary before submitting it, and at least once after it is submitted for publication.

6. Have an uninvolved, yet knowledgeable, colleague read the paper to critique it and proof for errors.

7. Consider your audience and write in a way that they can understand you.

Additional information on proper formatting can be found in the AMA Manual of Style.
CHOOSING THE APPROPRIATE ARTICLE TYPE

There are three main types of articles that the Journal of Diagnostic Medical Sonography publishes that are a good place for a sonographer to start: case studies, literature reviews and original research. Each type of manuscript has a unique format that you should follow.

CASE STUDY

For sonographers, a case study paper is a good first paper because it allows the sonographer to draw on the knowledge and skills that they use daily. Unusual or rare pathologies are interesting to the journal, but an unusual presentation of a common pathology may also be of interest. If you are unsure whether your pathology would be interesting to the journal, a quick search of the literature will show how frequently that subject is published. If there is not much information, or it has been several years since a case report was published, then it is more likely that your topic will be considered interesting.

Below is a good example for an outline for a case study paper:

1. Unstructured Abstract
2. Keywords
3. Introduction
4. Case Report
   a. Patient's clinical history and symptoms
   b. Findings on laboratory tests and additional imaging
   c. Sonographic findings
   d. Surgery / biopsy / interventional procedures / outcome
5. Discussion
   a. Normal anatomy, physiology, embryology related to the organ(s)
   b. Pathology
      i. Definition/prevalence/incidence
      ii. Etiology and risk factors
      iii. Clinical signs/symptoms
      iv. Associated laboratory findings and additional imaging tests
      v. Disease progression/staging
      vi. Treatments/outcomes (may include experimental treatments that require future research)
      vii. Short and long term prognosis with and without treatment
   c. Sonography
      i. Normal sonographic features of the organ
      ii. Typical abnormal sonographic features and any atypical sonographic features
         (compare and contrast to previously published cases, if appropriate)
      iii. Sonographic appearance as the disease progresses
      iv. Differential diagnoses and how they are differentiated from the pathology
      v. Validity and/or reliability of sonography in comparison to other imaging methods
6. Conclusion
7. Key Takeaways which emphasizes the 3-4 most important implications for clinical practice
If you decide to write a case report you should first ensure that you have high quality images that show the pathology, as well as sufficient patient-related information such as lab tests, additional medical imaging reports and images, surgery and/or pathology reports, and patient follow-up. You should ensure that you have any necessary HIPAA releases from the patient and approvals from your institution if required.

A case report begins with an introduction of the topic. The introduction should contain a definition of the pathology as well as interesting facts (such as incidence or prevalence) and should tell the reader why they should care about this pathology. It is important that the introduction is short and does not give away the body of the paper. It should only compel the reader to continue reading.

The introduction should be followed by an introduction of the patient. You should begin by stating why the patient arrived at your lab, and related medical/family history. Describe any clinical or presenting symptoms or laboratory results, as well as which test(s) were performed and a summary of the interpreting physician’s report. If the patient had additional testing in conjunction with your test, indicate whether the results corroborated or contradicted the sonography findings. If the patient had treatment, it is helpful to report on the treatment and provide the patient outcomes.

You will need images that correspond with your case study section. Your images will need to adequately display the pathology. If color and/or spectral Doppler are integral to the diagnosis, you need to include those images. You may include images that patient may have had from other imaging modalities as well as any gross pathological specimen images.

After you introduce the case, you should provide a review of the normal anatomy, embryology and pathophysiology of the organ(s) of interest. In this section, it is important to let the reader know what is normal and what is not, to include in pathology discussions.

The anatomy section is typically followed by a discussion of the pathology. In this section you describe the definition of the pathology as well as the etiology(ies). You should include risk factors that predispose a patient to the disease and the presenting signs and symptoms. If there are laboratory tests or other imaging tests that help to diagnose the problem, those should be included. You should describe the states of the disease or how the disease progresses, and what the typical outcome is if there is no treatment/intervention.

Describe the typical treatments and their effectiveness. Be sure to include any side-effects of treatment as well as short and long term prognosis with and without treatment. Describe whether the patient will survive with any morbidity, side effects, or if they can expect to live a normal life.

There should be a section specifically dedicated to sonography in which you explain both the normal and abnormal sonographic appearance of the organ(s) and disease. There may be several ways that the disease appears on the sonogram, and you should explain them all, or if there are too many, describe the most common appearances. Further, if there are many stages of the disease, you should describe the sonographic appearance through each stage.

Often, sonography is used to help identify the pathology based on a list of differential diagnoses. You should explain the most common differential diagnoses, describe how sonography can be used to differentiate your pathology from the other differentials, and compare the findings to those of other
imaging methods. Conclude this section with statements about the validity of sonography in diagnosing this disease. Sensitivity and specificity are common ways to report validity, but the diagnostic accuracy, positive predictive value, and negative predictive value can also convey how reliable sonography is at diagnosing the problem. Remember that if you say that sonography is valid, this statement needs to be backed up with current research.

A conclusion should be a short summary of your paper, typically one paragraph long. It should not repeat specific facts, but may propose additional research based on things reported in your paper. You should reiterate the importance of the specific findings.

It should be noted that case series of more than one case study may require Institutional Review Board approval. Single case studies generally do not have this requirement, but authors should always be aware of their institution's guidelines on publication before submitting to the JDMS.

LITERATURE REVIEW

A second type of accepted manuscript is a literature review. Individuals typically initiate this type of article because they have extensive experience in a particular area that is useful to others; or have interest in studying a topic which motivates them to write a review. A literature review article summarizes the pertinent research findings that have been reported in textbooks and journal articles. It provides a basic description of the topic being reviewed as well as current findings and theories. The review strives to objectively report all pertinent information, indicating which areas are controversial or still undefined. The value of review articles is their synthesis of the most current information.

Before deciding to write a literature review, you should do a survey of the current literature. Ideally, there would be no recent reviews of the literature on the topic. A review article requires a thorough reading of all current articles on the topic and the ability to compare and contrast the information. The results of all the relevant research on a topic is assembled into one authoritative article.

A literature review might help the reader determine what the best sonographic protocol to image an organ/pathology is or what sonographic signs best diagnose a pathology. It might compare a new technology to an old one, or compare the diagnostic accuracy of multiple imaging modalities for diagnosing a pathology. These are typical themes of literature reviews, but there are many more approaches that you could take.

As you survey the literature, you need to determine if there is enough research available to make adequate comparisons. Although there is no set limit on how much literature is needed, most review articles will have upwards of 20 or more references.

You also must have images and diagrams that help to illustrate the major characteristics being discussed. In addition, authors may also create tables and graphs as a way to visibly express the comparisons between the studies to the reader.

JDMS Literature Review manuscripts should contain at least 1500 words and at minimum ten timely, appropriate, peer-reviewed references. Refer to the PRISMA Statement as a guide.

The following is a suggested outline that you may use to construct your paper:
I. Structured Abstract
   a. Objective(s): The statement of the problem and or the research question driving the study.
   b. Materials & Methods: Concise details of how the data/references were collected for the study.
   c. Results: The salient descriptive and analytical data that are used the answer the research question.
   d. Conclusion: A statement (or two) about the relevance to the clinical practice of sonography.

II. Introduction and background (interesting information about the topic, what makes it important, what is known so far)

III. Methods (how did you search, number of results, vetting process, degree of rigor)

IV. Results including table with articles reviewed, author(s), year, summary of main point

V. Discussion
   a. Compare and contrast the research on the topics
   b. Explain conclusions that should be drawn from the comparison
   c. Identify problems encountered in the research (limitations, methodological problems)
   d. Draw conclusions from the research, emphasizing clinical impact
   e. Suggest future research

VI. Conclusion

VII. Key Takeaways which emphasizes the 3-4 most important implications for clinical practice

ORIGINAL RESEARCH

An original research project is an extensive project that uses the scientific method to support the findings. The project begins by asking a research question, or a hypothesis. Topics for original research may stem from a trend you have noticed, and you want to learn if your observation is real, or just a coincidence.

Then an experiment is designed to test the hypothesis, and data collection and subsequent data analysis is used to determine if the question can be answered. A research project is extensive because there is considerable pre-work that must be completed before an experiment can be conducted. If you are not an experienced researcher, you should seek a project mentor who is familiar with the subject as well as with the research process.

The most important thing to do before embarking on an original research project is to speak with your institution’s research review board, sometimes called an institutional review board (IRB). You will most likely have to submit an extensive proposal to a review board, which will require you have your entire project outlined from start to finish.

In preparation to submit your project to an institutional review board, you must determine the following:

1. Your hypothesis
   a. Why is it an important question?
   b. What gaps in knowledge does this project address?
   c. What literature supports your need to research this hypothesis?

2. How you will test your hypothesis (consult with a statistician if appropriate)
   a. How many subjects do you need for power of your study?
b. Informed consent for participation in research?

3. How will you collect your data?
   a. Survey tool or data source
   b. Form to write down measurements, if necessary
   c. Image review
   d. Medical records review

4. How will you analyze your data?
   a. Statistical analysis

5. How will you monitor the safety of your data/ and your subjects?

Once an institutional review board approves your project, you may begin recruiting subjects and perform your study. You should collect your data in the manner that you outlined in your application to the institutional review board, and take note of any problems that you encounter. Once you have collected your data, you will need to enter it into a spreadsheet or a database (however your statistician prefers) so that it can be analyzed with statistical analysis software. After you have your data analyzed and you understand what conclusions can be drawn, it is time to write the paper.

A research paper follows a predictable pattern which includes (in the case of the JDMS) a structured abstract, usually containing 150 words or less. The abstract is followed by an introduction of the topic and any interesting facts that justify the importance of the topic. The next section is the background in which you will summarize previous research related to the topic. In the background section, it is important to identify the strengths and limitations of the previous research as well as identify the unknown information that has yet to be addressed. The background section typically concludes with your specific research question or hypothesis to be tested.

The methods section follows your background section. It includes your hypothesis and the power of the study. In this section, you should outline each step of your experiment. It is important to detail the type of equipment used and the quality control measures utilized to produce valid data. The methods section should be written clearly and concisely so that someone else could easily replicate your study. The results section follows methods, and in this section, you report the results. Depending on the amount of data you analyzed, you may only want to report some of your results in writing. For the remainder of the results that you do not wish to write about specifically, you can put them in a table and refer the reader to that table.

The discussion section of the paper is the point at which you will provide the interpretation and explanations of your results. You should state what you think your results mean within the limits of your experimental design. In this section you should also identify the strengths or weaknesses of your study. For example, you might explain how your study size compares to other studies, and whether the demographics of your subjects are reflective of those in other studies. You alternately might explain if there were limitations that mean your study is not generalizable to the larger population. Finally, you should suggest future research projects that would expand on your results.

The conclusion should be short, and should summarize the problem, your findings, and the implications of your results. After the conclusion, it is appropriate to include any information about funding, conflicts of interest, or addressing individuals who have helped you with your project but who do not necessarily

Once your paper effectively conveys the information, you should finalize the other required components including the title page, the illustrations and figures and the figure legends, tables and any appendices. The illustrations and figures must be professionally drawn or photographed and must meet production quality requirements. Some journals, including the JDMS, require online submission, and therefore, images and figures must be submitted in high quality .jpeg or .png or other listed format.

Original research manuscripts should be at least 1500 words and include at minimum ten scholarly, peer-reviewed references. A general outline for original article papers includes:

1. Structured Abstract
   a. Objective(s): The statement of the problem and or the research question driving the study.
   b. Materials & Methods: Concise details of the type of project and study design
   c. Results: The salient descriptive and analytical data that are used the answer the research question.
   d. Conclusion: A statement (or two) about the relevance to the clinical practice of sonography.
2. Introduction and background (interesting information about the topic, what makes it important, summary based on literature of what is known so far and previous studies’ strengths and limitations, and the hypothesis or question being addressed)
3. Methods
   a. Type of study (educational, diagnostic, descriptive, comparative, case/control)
   b. Study design (interventional, case series, diagnostic sensitivity, cohort, etc)
4. Results
5. Discussion
   a. Explain conclusions that should be drawn from the study
   b. Identify problems encountered in the research (limitations, methodological problems)
   c. Draw conclusions from the research, emphasizing clinical impact
   d. Suggest future research
6. Conclusion
7. Key Takeaways which emphasizes the 3-4 most important implications for clinical practice

KEY DEFINITIONS

The following sections are required in most types of manuscripts:

**Author**: All contributing authors should give consent prior to a manuscript being submitted for publication. Information on who to include is available in the SAGE Editorial Policies.

**Title**: Titles should be short, descriptive, and accurate. The title is important because it can attract readers and is used to index the article. The author should use words such as sonography, ultrasound,
echocardiography, or another adjective or noun related to diagnostic medical sonography in the title so that the article is properly indexed. The title should tell the reader what the main focus of the paper is about and should not be a lengthy description. Many adequate titles are less than 100 characters.

**Abstract:** The abstract is a brief statement of approximately 150 words that summarizes the content of the paper. It should have an introductory sentence which clearly states the purpose of the paper. The methods do not need to be described in detail unless the paper is focused on a new type of methodology. The majority of the abstract content should be a summary of the results presenting the most important aspects of the work. The final sentence should be the conclusion of the study and the “take home” message to the reader. Because the abstract summarizes the manuscript it does not include citations to other literature.

**Keywords:** These are required for all submitted manuscripts. The author selects three to five key words that identify the content of the paper so it can be properly categorized for literature searches. The words should range from general to specific, e.g., ultrasonography, ectopic pregnancy, cervical ectopic. The literature review will help in determining the best key words that facilitated a proper search.

**Acknowledgment:** This section is optional, and should be included as part of the title page if submitted. Individuals who are not coauthors but who assisted either in the research, writing, or preparation of the manuscript are given credit for their efforts in the acknowledgment section listed at the end of the article. If the article was part of a thesis or has been presented at a meeting, that information should be indicated after the acknowledgment of contributors.

**Funding:** This section is used to identify any funding received for your research.

**References:** Whenever a journal article, textbook, government report, graduate thesis, website, or personal correspondence has been cited for specific information or data, it should be referenced. In this style, all references are numbered in the order that they appear in your manuscript, such that the first reference you cite is #1, and it remains #1 throughout the paper. The second reference you cite is #2 etc.

Your references should be appropriately formatted, and you should refer to the AMA Manual of Style for more extensive details. Below is an example of how to write references:

**REFERENCES**


All references cited should be current, comprehensive and peer reviewed. Websites are generally not considered current or peer-reviewed, although there are some exceptions such as websites that
maintain the authoritative data on incidence, prevalence and risk of disease such as the Centers for Disease Control and Prevention, or the US Census Bureau, or the US Preventative Services Task Force for example. All citations should be the primary source of the information. Most peer-reviewed journals, including the JDMS, do not permit the use of a reference to user-generated content websites such as “Wikipedia”.

REVIEW, REVISION AND ACCEPTANCE OF THE PAPER

After the Editor-in-Chief receives a manuscript, its receipt is acknowledged with an email giving the author pertinent information about the review process. It is important to note that the review process may take up to 12 weeks. The Editor-in-Chief reviews the manuscript to decide whether it is appropriate for JDMS. It is then typically referred to an Associate Editor who assigns at least two members of the Editorial Board or other reviewers.

Peer-reviewed journals, such as the Journal of Diagnostic Medical Sonography, require that all manuscripts be reviewed by Editorial Board members or other peer reviewers who are qualified to critique the subject matter of the paper. Independent reviewing is critical to the research publishing process because it validates the quality of submitted manuscripts. Reviewers provide an objective assessment of a submission, and recommend whether a piece of work advances the field sufficiently to warrant publication.

Only manuscripts of sufficient quality that meet the aims and scope of JDMS will be reviewed.

Reviewers are assigned by the Editor-in-Chief or Associate Editor to blindly critique the manuscripts without knowing the names or affiliation of the authors. Reviewers are asked to give constructive suggestions for revision and to provide direction to the author as to how the paper could be improved. When at least two reviews are received by the Associate Editor, they conduct their own thorough review and provide a summary of recommended changes to the Editor-in-Chief. A determination then is made as to whether the paper should be accepted outright, accepted contingent on the author making suggested revisions, or rejected in its present form with recommendations for how to rewrite it for resubmission. Sometimes the Editor-in-Chief will ask the author to change its format so it can be published in a different form. Most manuscripts require some revision.

The Editor-in-Chief communicates the recommendations of the reviewers to the author. JDMS makes every effort to help authors improve their articles, and in some cases a mentor may be assigned to work with the author and guide them through the process. If a suggestion is unclear, the author should not ignore it, but must contact the Editor-in-Chief for clarification. If an author strongly disagrees with a recommendation for change, this can be discussed with the Editor-in-Chief, who may agree with the author or work out a compromise.

Revisions should be made as quickly as possible (generally within two weeks) and submitted back to the Editor-in-Chief through SAGETrack. If extensive changes were required, the paper may be returned to the reviewers to ensure that the requested changes were made and that the paper is now ready for publication. Otherwise the Editor-in-Chief will approve the changes and send an acceptance letter to the author.
After revisions are made and the paper is accepted for publication, it is provided to the publisher. It is then copyedited for grammatical and syntactical errors, and a proof is sent to the author for approval. Once the manuscript has been transferred to the publisher, further communication occurs with the Production Editor, who will send the author a proof prior to publication. The article is then made available online and in print, usually in the next available issue (following 3-4 weeks in production).

Authors may contest editorial or peer review decisions by following the process outlined by SAGE at https://us.sagepub.com/en-us/nam/complaints-and-appeals-procedure.

**FINAL STEPS IN PUBLICATION**

After a manuscript has been through the editorial review process, it is transferred to the SAGE Publications Production Department. A production editor, who is assigned to edit manuscripts for JDMS, begins the process of copyediting the manuscript so it may be published in its clearest, most concise, and most accurate format.

Before an article can be published in JDMS, SAGE Publications must receive a signed **Contributor Form** from all authors of an article prior to its publication. The Contributor form will be included by email to the corresponding author during the review process following formal acceptance.

Once the Contributor form is received the production editor first checks to see that all materials, including figures, references, and legends, are sent with the manuscript. Efficient production requires complete contact information for the authors including an email address, and phone numbers.

Although most manuscripts received are well organized, it is expected that the author be the content expert and the publisher be the style, grammar, and spelling expert. This takes away any concerns the author may have about the possibility of errors in syntax, style, or consistency.

As the process of editing begins, the manuscript is checked carefully for grammar, spelling, punctuation, convention, and consistency. On rare occasions, a sentence or paragraph may be rewritten to help the author express an idea more clearly. The illustrations are incorporated into the article layout. The article is then composed in page format so that it will appear similar to how it will appear in the journal.

The proof is emailed to the author for final approval or comments. In some cases, the copyeditor may query the author to clarify something that is not understood or to obtain information that was omitted. The questions from the copyeditor to the author are written directly on the copy that the author receives.

There are several more steps that take place to ensure the accuracy of the material after the initial pages stage. The whole process takes about 2 months, from the time the Editor delivers the manuscript to the publisher until date of publication. It is worth every minute of time so that all are sure that the author and the reader are both pleased with a professional and highly accurate representation of the author’s material.
APPENDIX B: GUIDELINES FOR STUDENT SUBMISSIONS

☐ Student is paired with an advisor from their program who will actively mentor the submission
  a. The assigned advisor should be familiar with scientific writing style and willing to guide the student through the entire writing process, as he/she sees fit, to select the topic, make the initial submission and to help with revisions and resubmission.

☐ Student generates an **appropriate, novel and relevant** topic
  a. Topic should typically include one of the following; advanced procedure, important protocol, comparison of efficacy between modalities, novel case studies, literature review/pathology investigations. Clinical practitioners can be a great resource for interesting or novel cases (and images), with the student contributing as the author.
  b. The student should perform initial literature reviews to summarize current information available and provide to the advisor a summary and rationale for exploring the topic.
  c. Advisor should approve /modify topic according to the summary and rationale.

☐ Student obtains high quality images and other supporting materials
  a. In most cases, the topic should be one for which the students can obtain images.
  b. All clinical images must have PHI removed and be brought into HIPAA compliance.
  c. All images from external sources require proper acknowledgement (including internet sources). The JDMS offers a template for requesting **Permission to Reprint**.
  d. For literature reviews, images, tables, charts, and figures are still encouraged.

☐ Student references the **JDMS Author’s Manual** FREQUENTLY for formatting and submission guidelines, and reads and discusses published articles in the same category with advisor
  a. All sections (abstract, title page, manuscript body, conclusion) should follow AMA guidelines as appropriate.
  b. Please note that all authors, including the advisor/program director if they will be included, must be added during the manuscript submission process. Late additions to author names at the proof stage will not be accepted.
  c. Acknowledgements are generally not accepted unless the person’s contribution was scientific in nature (please do not include family members, friends, other students, teachers, or anyone else who might give away the author’s identity).

☐ Student writes and submits the paper to the advisor for feedback
  a. Advisor should check for all items detailed in this document including manuscript format, citations, and compliance with the Author Manual and requests necessary edits.
  b. The advisor may make extensive edits and adjustments to bring paper to a standard that is publishable. When this occurs, the advisor becomes an author on the manuscript.

☐ Student revises/rewrites the paper and resubmits to advisor who critiques the paper and confirms that final draft follows the criteria for article submission to the JDMS.
  a. If advisor doesn’t feel the paper is an ‘A’ quality paper, the student should not be encouraged to submit to the JDMS.
  b. It is important that the manuscript detail how the topic is unique and advances the field.

☐ Student submits the paper to the JDMS through the **online submission system**.
  a. Feedback, including suggestions for improvement, will be provided by the JDMS Editors.
COMMON ERRORS MADE IN STUDENT SUBMISSIONS

Advisors should be on the watch for common writing mistakes when critiquing student manuscripts:

1. Sources should be recent and from peer reviewed journals or based on current evidence.
   a. Websites and textbooks should seldomly be used.
      i. Textbooks often contain summarized or old/noncurrent information.
      ii. Websites are not appropriate and should be avoided in formal writing, including sites like WebMD, UptoDate, Dynamed, or Wikipedia.

2. Papers should be blinded for review and written in scientific style, using third person voice.
   a. First and second person should be avoided in a formal writing and personal comments should be excluded. Similies, hyperbole, and similar techniques are rarely used.

3. Citing an entire written paragraph is not appropriate in scientific writing.
   a. Direct quotes should rarely be used, except in circumstances when the use of very specific language is important to convey an idea or definition.
   b. Citations should be paraphrased and cited…not directly quoted.
   c. Citations should occur after each sentence rather than at the end of a paragraph.
   d. The reader should know which source to reference for each fact stated.

4. Do not cite common knowledge.
   a. If the information is general knowledge (like a definition or general anatomy information), a reference is not required.
   b. Common information should be written in the author’s own descriptive words.

5. Paragraphs should not be too short or too long.
   a. Paragraphs should contain similar information and should be at least 3 sentences long but not more than 8-10 sentences.
   b. The first sentence of the paragraph should convey a concept, with the rest supporting it.

6. Avoid the use of parentheses except when important to help the reader understand the topic.
   a. Sometimes novice writers want to tell the reader extra information, such as why they included the sentence or information above. This is not appropriate in formal writing.
   b. Personal commentary should be excluded from scientific writing. Just the facts!

7. The verb tense should not change through the paper.
   a. The only time past tense can be used is when talking about a patient case or previous research, otherwise the present tense is used.

8. The abstract should be a document that can stand alone (without the full paper).
   a. Abstracts should introduce the topic, describe the methods and general results/conclusions, and should be written such that they do not require citations.
   b. If abbreviations are used, the abbreviations have to be re-identified the first time they are used in the paper.

9. Conclusion section should not present new material.
   a. Conclusions should be a review/summary of the primary findings already discussed.