# MASTERING THE ART OF WRITING A COMPREHENSIVE CASE REPORT: A STEP-BY-STEP GUIDE

#### **MODULE OVERVIEW:**

This module aims to provide beginners with a step-by-step guide on how to write a comprehensive case report. From gathering patient information to discussing treatment outcomes, learners will gain a thorough understanding of the essential elements involved in creating a well-structured and informative case report. The module will cover key topics such as patient history, differential diagnosis, diagnostic tests, treatment strategies, and the critical components of the discussion section. Practical examples and tips will be provided throughout the module to enhance learners' understanding and proficiency in writing case reports.



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#### INTRODUCTION TO CASE REPORTS

One of the first lines of evidence in medical science is the case report. There have been many instances where case reports have been used to aid in the initial dissemination (and advancement) of scientific knowledge. A case report is a specific type of manuscript that highlights the unique characteristics and treatment of a patient. William Osler, the founder of modern medicine, once said, "Always note and record the unusual...publish it." Put it down as a brief, succinct note for posterity. Such communications are always valuable, and they are still applicable in the modern era.

Determining whether a case is reportable typically depends on several factors and considerations. Here are some guidelines to help you determine if a case is reportable:

Uncommon or rare condition: Cases that involve uncommon or rare medical conditions are often considered reportable. These cases contribute to medical knowledge and help increase awareness and understanding of rare diseases or unusual presentations.

**Novel treatment approaches:** If a case involves a unique or innovative treatment approach that has not been extensively reported in the literature, it may be considered reportable. Such cases can provide valuable insights into alternative therapies or interventions.

Adverse events or complications: Cases involving unexpected or severe adverse events or complications related to a specific treatment, medication, or procedure are often reportable. These reports help identify potential risks, improve patient safety, and guide future medical practices.

**Diagnostic challenges or unusual presentations:** Cases that present diagnostic challenges or feature uncommon clinical presentations may be reportable. These cases can shed light on atypical

manifestations of diseases or help clinicians refine their diagnostic skills.

Treatment outcomes and success stories: Cases with remarkable treatment outcomes or successful management of complex conditions can be reportable. Reporting such cases can inspire other healthcare professionals and contribute to the understanding of effective treatment strategies.

**Educational value:** Cases that have significant educational value, such as those that demonstrate important clinical lessons, diagnostic dilemmas, or therapeutic considerations, are often considered reportable. These cases can serve as learning opportunities for healthcare professionals.

Ethical or legal implications: Cases involving ethical or legal considerations, such as complex decision-making processes, informed consent issues, or rare ethical dilemmas, may be reportable. These cases can contribute to the ethical discourse in healthcare.

Patient perspectives: Cases that highlight the patient's experience, challenges, or unique circumstances may be reportable. Patient-centered reports can provide valuable insights into the lived experience of individuals with specific conditions or treatments. It's important to note that the criteria for reportable cases may vary depending on the specific medical field or journal requirements. It is advisable to refer to the guidelines of the target journal or consult with experienced colleagues or mentors for further guidance on whether a case is reportable.

# GATHERING PATIENT INFORMATION AND ESTABLISHING A CLEAR OBJECTIVE

Gathering patient information and establishing a clear objective for a case report is a crucial initial step in the case report writing process.

## Some guidelines to help you with this:

Obtain Informed Consent: Before gathering patient information, ensure that you have obtained appropriate informed consent from the patient or their legal representative. Patient confidentiality and privacy must be maintained throughout the case report.

**Demographic Information:** Begin by recording basic demographic details about the patient, such as age, gender, and any relevant identifying information. Use initials or a unique identifier to protect patient anonymity.

**Medical History:** Gather a comprehensive medical history, including previous illnesses, surgeries, allergies, medications, and family history. Include relevant details such as the duration and progression of the patient's current condition.

Chief Complaint: Identify the primary reason for the patient's visit or admission. Clearly document the patient's chief complaint or the primary symptom that led to the diagnosis or investigation.

**Presenting Symptoms:** Describe the patient's presenting symptoms in detail. Include information about the onset, duration, severity, and any associated factors or changes over time.

Physical Examination Findings: Document the findings from a thorough physical examination. Include objective measurements such as vital signs, palpation findings, auscultation results, and any notable abnormalities.

**Diagnostic Tests:** Compile a list of diagnostic tests performed on the patient. Include laboratory investigations, imaging studies, biopsies, or other procedures relevant to the case. Record the specific tests conducted, their results, and any notable findings.

**Treatment and Interventions:** Document the treatment modalities employed for the patient, such as medications, surgeries, therapies, or interventions. Specify the dosage, frequency, and duration of treatment.

Follow-up Information: Include information about the patient's follow-up visits, including any modifications made to the treatment plan, changes in symptoms, or overall progress. Note the patient's response to treatment and any relevant outcomes.

Establishing the Objective: Based on the gathered patient information, establish a clear objective for your case report. Determine what specific aspect of the case you aim to highlight, such as a rare condition, a unique treatment approach, diagnostic challenges, or educational insights.

Relevance and Significance: Consider the relevance and significance of the case within the medical field. Evaluate how the case contributes to existing knowledge, addresses a gap, or provides valuable insights or lessons for healthcare professionals.

By thoroughly gathering patient information and establishing a clear objective, you lay the foundation for a well-structured and focused case report. This information will guide subsequent sections of the report, such as the discussion of the patient's history, differential diagnosis, treatment, and outcomes.

# STRUCTURING THE CASE REPORT: ESSENTIAL SECTIONS AND COMPONENTS

Structuring your case report with essential sections and components is crucial for ensuring a clear and organized presentation of the information. The key sections typically included in a case report:

**Title:** Provide a concise and informative title that accurately reflects the content of the case report.

**Abstract:** Write a brief summary of the case report, including the patient's key characteristics, the primary diagnosis, important findings, and significant outcomes. The abstract should give readers an overview of the case report's main points.

**Introduction:** Introduce the purpose and objective of the case report. Provide background information about the condition or topic being discussed and explain why the case is important and relevant.

Case Presentation: Describe the patient's background and demographic information. Present the chief complaint, medical history, relevant physical examination findings, and diagnostic test results. Include sufficient details to allow readers to understand the case thoroughly.

**Discussion:** Analyze and interpret the case in the context of existing medical knowledge. Compare your findings with relevant literature and discuss any unique or significant aspects of the case. Address clinical implications, research gaps, and lessons learned from the case.

**Conclusion:** Summarize the key findings and their implications. Emphasize any novel aspects, clinical pearls, or important takeaways from the case report.

**References:** Provide a list of all the sources and references cited in the case report. Follow the appropriate citation style (e.g., AMA, APA) to ensure accuracy and consistency.

Remember to adhere to the specific guidelines of the journal or publication you plan to submit your case report to, as they may have their own preferred structure or additional requirements.

Now that we know some key sections, we will be further discussing on how we can write these sections efficiently and what should we keep in our mind while writing these sections.

#### **ABSTRACT:**

Writing an efficient and impactful abstract for a case report is crucial as it provides a concise summary of the main points of the report.

Some guidelines to help you write an effective abstract:

**Begin with a Clear Objective:** State the objective or purpose of the case report in a single sentence. Clearly articulate what the report aims to achieve or present.

**Describe the Case:** Provide a brief overview of the patient's demographics, clinical presentation, and relevant medical history. Summarize the key findings that make this case noteworthy or unique.

Highlight the Diagnostic Process: Concisely describe the diagnostic assessment, including any pertinent laboratory results, imaging findings, or diagnostic challenges encountered.

**Present the Treatment Approach:** Briefly outline the treatment strategy implemented for the patient. Highlight any innovative or unconventional approaches, if applicable.

**Discuss the Outcome:** Summarize the patient's response to treatment and the overall clinical outcome. Emphasize any significant improvements, adverse events, or unexpected findings.

**Convey the Significance:** Clearly state the relevance and significance of the case. Explain how the report contributes to medical knowledge, fills a gap in the literature, or provides important clinical insights.

**Keep it Concise:** Abstracts are typically limited to a specific word count, so ensure that each sentence contributes to the overall

message. Avoid unnecessary details or excessive background information.

**Use Clear and Specific Language:** Write in a clear and concise manner, using specific terms and avoiding ambiguity. Use precise language to describe the key aspects of the case report.

Follow the Journal's Guidelines: Adhere to the specific guidelines provided by the target journal or publication. Ensure that your abstract meets the required length and formatting specifications.

**Revise and Edit:** After drafting the abstract, review it carefully for clarity, coherence, and accuracy. Remove any redundant information or irrelevant details. Edit the abstract to ensure a smooth flow and correct any grammatical or typographical errors.

Capture the Main Points: Ensure that the abstract provides a comprehensive summary of the case report, covering essential aspects such as the patient's presentation, diagnostic process, treatment approach, outcome, and significance.

Remember that the abstract serves as a concise representation of the case report, providing readers with a quick overview of the key findings and implications.

Commonly asked questions while writing this section:

# How long should the abstract be?

The length of the abstract can vary depending on the journal's guidelines, but typically, it is limited to a specific word count (e.g., 150-250 words). Beginners may wonder how to effectively summarize the key points within this constraint. Focus on providing a concise overview of the case report, ensuring that all essential aspects are covered without excessive detail.

#### What should be included in the abstract?

The abstract should cover the essential elements of the case report, including the objective or purpose of the report, a brief description of the case, key findings, treatment approach, outcome, and the significance of the case. Ensure that each sentence contributes to the overall understanding of the case report.

### How much background information should be provided?

The abstract should focus on the case itself rather than providing extensive background information. Include only the necessary context to understand the case's relevance and significance. Keep it concise and to the point.

## Can personal opinions or biases be included in the abstract?

The abstract should maintain an objective and factual tone. It should present the information without personal opinions or biases. Stick to the objective description of the case and its findings, supporting them with evidence and avoiding subjective statements.

# How to effectively convey the significance of the case?

Beginners find it challenging to effectively communicate the significance of the case within the limited word count of the abstract. Clearly state the implications and contributions of the case report to medical knowledge or clinical practice. Highlight any unique aspects, lessons learned, or important insights gained from the case.

# How to ensure clarity and coherence in the abstract?

Writing a clear and coherent abstract can be a concern for beginners. It is important to carefully structure the abstract, ensuring that each sentence flows logically and connects with the previous one. Use clear and concise language, avoiding unnecessary jargon or technical terms. Review and revise the abstract multiple times to enhance its clarity and coherence.

# Should references be included in the abstract?

Typically, references are not included in the abstract. The abstract should stand alone as a concise summary of the case report without citing specific sources. However, be sure to follow the journal's guidelines regarding references, as some journals may have specific requirements.



#### **INTRODUCTION:**

Writing an efficient and impactful introduction for a case report requires careful consideration of several key elements.

Some guidelines to keep in mind while writing this section:

**Start with a Hook:** Begin the introduction with an engaging opening sentence or a concise statement that captures the reader's attention. This can be a thought-provoking fact, a compelling anecdote, or a brief description of the case's uniqueness or significance.

**Provide Context:** Give a brief overview of the condition or topic being discussed in the case report. Explain the prevalence, clinical importance, or relevance of the condition to set the stage for the specific case being presented.

Highlight the Gap: Identify the gap or knowledge deficit that the case report aims to address. Emphasize why this particular case is important and how it contributes to filling the gap in existing medical literature. This could involve discussing the rarity of the condition, unusual clinical presentation, or unique treatment approach.

State the Objective: Clearly state the objective of the case report. What specific aspect of the case are you aiming to highlight? Is it a rare diagnosis, an innovative treatment, or a challenging diagnostic dilemma? Make sure the objective is clear and specific, guiding the reader's understanding of the case report's purpose.

Briefly Outline the Report: Provide a concise overview of the sections that will be covered in the case report. Mention the key components such as case presentation, clinical findings, diagnostic assessment, therapeutic interventions, and follow-up outcomes. This gives the reader a roadmap of what to expect in the subsequent sections.

**Keep it Concise:** The introduction should be succinct and to the point. Avoid excessive background information or lengthy explanations. Focus on capturing the reader's interest and setting the stage for the case report without going into unnecessary detail.

Maintain a Professional Tone: Write the introduction in a professional tone, adhering to the appropriate style and language for scientific writing. Use clear and concise language, avoiding jargon or overly technical terms that may confuse the reader.

**Revise and Refine:** After completing the first draft, review and revise the introduction. Ensure that it flows logically, provides a clear rationale for the case report, and effectively communicates the significance of the case.

**Proofread for Clarity and Grammar:** Carefully proofread the introduction for clarity, grammar, and punctuation errors. A well-written and error-free introduction enhances the overall quality of the case report.

Commonly asked questions while writing this section:

# How much background information should I provide in the introduction?

Beginners may struggle with finding the right balance between providing sufficient background information and avoiding excessive detail. The key is to provide enough context for readers to understand the condition or topic being discussed, without overwhelming them with unnecessary information. Focus on the essential aspects that directly relate to the case report and its objectives.

Should I include a literature review/references in the introduction? The introduction of a case report typically does not require an extensive literature review. Instead, the focus should be on highlighting the gap or knowledge deficit that the case report

addresses. While it may be necessary to refer to a few key studies or reports that are directly relevant to the case, the primary purpose of the introduction is to set the stage for the case report itself.

How do I make the introduction engaging and captivating? It can be challenging for beginners to find ways to make the introduction engaging. Start with an attention-grabbing hook or a concise statement that captures the reader's interest. This could be an intriguing fact, a captivating anecdote, or an unusual aspect of the case. Additionally, clearly communicate the significance and uniqueness of the case, highlighting how it contributes to medical knowledge or fills a gap in the literature.

# How long should the introduction be?

The length of the introduction can vary depending on the complexity of the case and the journal's guidelines. However, in general, it is advisable to keep the introduction concise. Focus on providing the necessary context and outlining the objective of the case report without excessive detail. Aim for a clear and succinct introduction that captures the reader's attention and sets the stage for the rest of the report.

Can I include personal opinions or biases in the introduction?

The introduction should maintain a professional tone and avoid personal opinions or biases. It should be objective and based on scientific evidence. Ensure that the information provided is supported by reliable sources and remains focused on the case's relevance and significance.

#### How should I structure the introduction?

The introduction can be structured in a logical flow, starting with an engaging opening sentence or hook, followed by providing context and background information about the condition or topic. Clearly state the objective of the case report and briefly outline the sections

that will be covered. Remember to review the specific journal's guidelines for any preferred structure or formatting requirements.



#### **CASE PRESENTATION:**

Writing an efficient and impactful case presentation is essential for a case report as it provides a detailed overview of the patient's background, clinical presentation, and relevant findings.

Some guidelines to help you write an effective case presentation:

Patient Demographics: Start by providing essential demographic information about the patient, such as age, gender, and relevant medical history. This sets the stage for the case and helps contextualize the subsequent details.

Chief Complaint: Clearly state the primary reason the patient sought medical attention. Describe their chief complaint succinctly and objectively.

**Presenting History:** Summarize the patient's presenting history, including the onset and duration of symptoms, any associated factors, and relevant events leading up to seeking medical care. Include specific details that are pertinent to understanding the case.

Physical Examination Findings: Describe the significant physical examination findings. Focus on abnormalities or notable observations that are relevant to the case and contribute to the diagnosis or management.

**Diagnostic Tests:** Provide an overview of the diagnostic tests performed, such as laboratory investigations, imaging studies, or specialized procedures. Present the relevant results and their implications for the case.

**Differential Diagnosis:** Discuss the initial differential diagnosis considered based on the patient's clinical presentation and test

results. Present the various possible diagnoses, along with their respective likelihoods and rationale.

**Diagnostic Process:** Outline the steps taken to reach the final diagnosis, including any additional tests, consultations, or investigations that were performed. Explain the clinical reasoning behind the diagnostic decisions made.

**Final Diagnosis:** State the final diagnosis for the case, along with the supporting evidence and rationale. Clarify any challenges or considerations encountered during the diagnostic process.

**Treatment Approach:** Describe the treatment strategy employed for the patient, including medications, procedures, surgeries, or other interventions. Specify the rationale behind the chosen treatment approach.

**Follow-up:** Provide details on the patient's subsequent visits or hospital stays. Highlight any changes in symptoms, modifications made to the treatment plan, or relevant observations during the follow-up period.

Clinical Course: Summarize the patient's overall clinical course, including improvements, complications, or unexpected outcomes. Discuss any unique aspects or challenges encountered during the management.

Images or Figures or Tables: If applicable, include relevant images, photographs, or figures or tables that enhance the understanding of the case. Ensure proper consent and appropriate labelling for any patient-related images.

Commonly asked questions while writing this section:

# How much detail should be included in the case presentation?

Beginners may struggle to find the right balance between providing sufficient detail and overwhelming the reader. Include the essential information needed to understand the case, such as relevant patient demographics, chief complaint, significant physical examination findings, diagnostic tests, and treatment approach. Avoid excessive detail or irrelevant information that does not contribute to the understanding of the case.

## How should I structure the case presentation?

Beginners may be unsure about the best way to structure the case presentation. Generally, it is advisable to follow a logical and chronological order. Start with patient demographics and chief complaint, then progress to the presenting history, physical examination findings, diagnostic tests, differential diagnosis, diagnostic process, final diagnosis, treatment approach, follow-up, and clinical course. Subheadings or bullet points can be used to enhance the organization and readability of the presentation.

# Which diagnostic tests should I include in the case presentation? Beginners may have difficulty selecting the relevant diagnostic tests

to include. Focus on the tests that were instrumental in reaching the final diagnosis or significantly contributed to the understanding of the case. Include pertinent laboratory investigations, imaging studies, or specialized procedures that directly influenced the diagnostic process or treatment decisions.

# How do I present the clinical course effectively?

Presenting the clinical course can be challenging for beginners. Focus on the key aspects of the patient's progress, such as changes in symptoms, treatment modifications, complications, or unexpected outcomes. Highlight any unique observations or challenges encountered during the management. Present the information in a

clear and organized manner, emphasizing the most relevant and impactful aspects of the clinical course.

Should I include images or figures in the case presentation? Images can be valuable for enhancing the understanding of the case, particularly when they provide visual evidence or aid in illustrating important findings. Ensure that you have proper consent for using any patient-related images and provide appropriate labels or captions to explain their relevance.

How do I ensure patient confidentiality and ethical considerations? Ensure that you have obtained informed consent from the patient or their legal representative for publication of the case report. Anonymize patient information, including names, specific dates, and any other identifying details, to protect patient privacy. Briefly mention the ethical considerations in the case presentation, highlighting that proper consent was obtained.

Can I include personal opinions or biases in the case presentation? The case presentation should maintain an objective and factual tone. Avoid including personal opinions or biases that may influence the interpretation of the case. Stick to presenting the facts, clinical findings, and diagnostic process in an unbiased manner, supporting them with appropriate evidence.

#### **DISCUSSION:**

Writing an efficient and impactful discussion for a case report is crucial as it allows you to interpret and analyze the findings of the case, provide context, and discuss the implications.

Some guidelines to help you write an effective discussion:

Recapitulate the Case: Begin the discussion by briefly summarizing the key aspects of the case, including the patient's presentation, diagnostic process, and treatment approach. Provide a concise reminder of the case details to set the context for the discussion.

Interpret the Findings: Analyze the findings of the case and discuss their significance. Explain how the clinical presentation, diagnostic tests, and treatment response support the final diagnosis. Interpret the findings in light of existing literature and medical knowledge.

Compare and Contrast with Existing Literature: Compare the findings of your case with relevant studies or similar cases reported in the literature. Discuss similarities, differences, and any unique aspects of your case. Highlight the contribution of your case report to the existing knowledge base and identify any gaps or inconsistencies in the literature.

Discuss Diagnostic Challenges and Considerations: Address any diagnostic challenges encountered in the case and explain how they were resolved. Discuss the nuances, complexities, or rare aspects of the case that made diagnosis or treatment decision-making difficult. This helps highlight the practical implications and lessons learned from the case.

**Explore Alternative Diagnoses:** Discuss other possible diagnoses that were considered during the diagnostic process. Explain why they were ultimately ruled out based on the patient's clinical presentation, test

results, or response to treatment. This demonstrates critical thinking and helps readers understand the differential diagnostic process.

Address Treatment Choices and Outcomes: Evaluate the chosen treatment approach and discuss its effectiveness. Analyze the patient's response to treatment, including improvements, adverse events, or unexpected outcomes. Compare your findings with the expected or reported outcomes in the literature.

Consider Limitations: Acknowledge any limitations of the case report, such as a small sample size, lack of control group, or incomplete data. Discuss how these limitations might impact the generalizability or reliability of the findings. Transparency about limitations enhances the credibility of the case report.

Discuss Clinical and Research Implications: Highlight the clinical implications of the case report. Discuss how the findings may impact patient management, treatment guidelines, or further research. Identify potential areas for future investigation or studies that could build upon the insights gained from the case.

**Provide a Conclusion:** Summarize the main points discussed in the discussion section. Reinforce the significance and uniqueness of the case report. Emphasize the clinical or research value of the findings and the contributions they make to medical knowledge.

Maintain a Clear and Coherent Structure: Organize the discussion section in a logical and coherent manner. Use subheadings or bullet points to structure your discussion and make it easier to follow. Ensure that each paragraph or section contributes to the overall understanding and impact of the case report. Highlight unique or important aspects: Identify any unique or significant aspects of the case that contribute to medical knowledge or clinical practice.

Emphasize any lessons learned, novel treatment approaches, or clinical pearls that emerged from managing the case.

Formulate conclusions and recommendations: Based on the case presentation and discussion, summarize the key takeaways and formulate conclusions. Outline recommendations for future management strategies, diagnostic approaches, or areas for further research.

**Be evidence-based:** Ensure that the case discussion is supported by current evidence and references. Draw from reputable sources and cite relevant studies or guidelines to strengthen your arguments and recommendations.

**Proofread and Edit:** After drafting the discussion, carefully review it for clarity, coherence, and accuracy. Remove any redundant or repetitive information. Edit the content to improve readability, and correct any grammatical or typographical errors.

By following these guidelines, you can write an efficient and impactful discussion for your case report, effectively interpreting and discussing the findings, and highlighting their clinical and research implications.

Commonly asked questions while writing this section:

# How long should the discussion section be?

Beginners may wonder about the appropriate length for the discussion section. While the length can vary depending on the journal's guidelines, aim for a concise and focused discussion that covers the key points. Avoid unnecessary repetition or excessive detail. Ensure that all important aspects of the case report are adequately addressed.

#### How should I structure the discussion section?

Beginners may struggle with structuring the discussion section effectively. Start by summarizing the key findings and interpretations of the case. Then, address each aspect individually, such as diagnostic challenges, treatment choices, clinical outcomes, and research implications. Use subheadings to enhance organization and clarity.

### How do I compare my findings with existing literature?

Beginners may be uncertain about how to compare their findings with the existing literature. Start by conducting a thorough literature review to identify relevant studies or case reports. Compare and contrast your case with similar cases or studies, discussing similarities, differences, and unique aspects. Highlight the contributions and implications of your case in relation to the existing literature.

# Can I discuss alternative diagnoses even if they were not considered in the case?

It is generally not necessary to discuss alternative diagnoses that were not considered during the diagnostic process. Focus on the differential diagnoses that were relevant and explain why they were ruled out. Discussing unrelated diagnoses may divert the reader's attention and unnecessarily complicate the discussion.

# How should I address limitations in the case report?

Beginners may struggle with addressing limitations in the discussion section. Identify and acknowledge the limitations of the case report, such as sample size, lack of control group, or missing data. Discuss how these limitations might affect the interpretation or generalizability of the findings. Be transparent about the limitations, but also emphasize the strengths and unique aspects of the case report.

# What are the key elements to include in the conclusion of the discussion?

The conclusion of the discussion should summarize the main points discussed and highlight the significance of the case report. Briefly recap the key findings, interpretations, and implications. Emphasize the clinical and research value of the case report and its contributions to medical knowledge. Avoid introducing new information in the conclusion.

Can I include personal opinions or speculations in the discussion? The discussion section should maintain an objective and evidence-based approach. Avoid including personal opinions, speculations, or unsupported claims. Instead, rely on the findings of the case and relevant literature to support your interpretations and conclusions.

How do I ensure clarity and coherence in the discussion section? Beginners may have concerns about maintaining clarity and coherence in the discussion section. Clearly articulate your thoughts and ideas, ensuring that each paragraph or section flows logically from one point to another. Use clear and concise language, avoiding unnecessary jargon. Proofread and revise the discussion section multiple times to enhance its clarity and coherence.

#### **CONCLUSION:**

Writing an efficient and impactful conclusion for a case report is important as it provides a concise summary of the key findings, highlights the significance of the case, and emphasizes its contributions to medical knowledge.

Recap the Key Findings: Begin the conclusion by summarizing the key findings of the case. Briefly remind the reader of the patient's presentation, diagnostic process, and treatment approach. Focus on the most important and relevant aspects of the case that support the final diagnosis and contribute to its uniqueness or clinical significance.

Emphasize the Clinical Significance: Discuss the clinical implications of the case. Explain how the findings of the case report can impact patient management, treatment guidelines, or further research. Highlight any unique aspects of the case that provide new insights or challenge existing knowledge. Clearly state the value that the case report brings to the medical community.

Highlight Contributions to Medical Knowledge: Discuss how the case report adds to the existing body of medical knowledge. Identify any gaps in the literature that the case report fills or any novel findings it presents. Emphasize the contributions of the case report in expanding the understanding of the disease, diagnostic approaches, treatment strategies, or patient outcomes.

**Discuss Lessons Learned:** Share any important lessons learned from the case. Highlight any diagnostic challenges encountered and how they were overcome. Discuss any unexpected outcomes, adverse events, or unique aspects of the case that have clinical or educational value. Reflect on the insights gained and their potential impact on future clinical practice.

**Avoid New Information:** The conclusion should not introduce new information or findings that have not been discussed in the main body of the case report. It should provide a concise summary and synthesis of the existing information.

Maintain a Positive and Confident Tone: Express confidence in the validity and significance of the case report. Use positive language to convey the importance of the findings and their potential impact on patient care or medical research. Avoid overstatement or unsupported claims.

Be Succinct and Clear: Keep the conclusion concise and to the point. Avoid unnecessary repetition or lengthy explanations. Use clear and straightforward language to ensure that the message is easily understood by the reader.

Consider Future Directions: Optionally, you can provide suggestions for future research or areas of investigation based on the insights gained from the case. This demonstrates the potential for further exploration and helps stimulate scientific inquiry.

**Proofread and Edit:** After drafting the conclusion, carefully review it for clarity, coherence, and accuracy. Ensure that it effectively summarizes the main points of the case report and conveys its significance. Remove any unnecessary or redundant information. Edit the content to improve readability and correct any grammatical or typographical errors.

Commonly asked questions while writing this section:

# How long should the conclusion be?

Beginners may wonder about the appropriate length for the conclusion. The conclusion should be concise and focused, summarizing the key points without unnecessary elaboration. Aim for

a paragraph or two that effectively captures the essence of the case report.

#### What should be included in the conclusion?

The conclusion should recap the key findings of the case, emphasize its clinical significance, and highlight its contributions to medical knowledge. It should also briefly mention any lessons learned from the case and potential future directions for research or clinical practice.

## Should I introduce new information or findings in the conclusion?

The conclusion should not introduce new information or findings that have not been discussed in the main body of the case report. Its purpose is to provide a concise summary and synthesis of the existing information, reinforcing the significance of the case and its implications.

# How do I effectively emphasize the clinical significance?

To emphasize the clinical significance, discuss how the findings of the case report can impact patient management, treatment guidelines, or further research. Highlight any unique aspects of the case that provide new insights or challenge existing knowledge. Clearly state the value that the case report brings to the medical community.

# Can I express personal opinions in the conclusion?

The conclusion should maintain an objective and evidence-based approach. Avoid expressing personal opinions that are not supported by the findings or relevant literature. Focus on summarizing and interpreting the results rather than expressing subjective viewpoints.

# How can I make the conclusion impactful?

To make the conclusion impactful, use positive language to convey confidence in the validity and significance of the case report. Be concise and clear in summarizing the main points. Emphasize the unique contributions of the case report and its potential impact on patient care or medical research.

#### Should I mention limitations in the conclusion?

It is not necessary to extensively discuss limitations in the conclusion. However, if there are notable limitations that may impact the interpretation or generalizability of the findings, briefly mention them. Focus on the strengths and unique aspects of the case report rather than dwelling on limitations.

## How do I ensure coherence with the rest of the case report?

To ensure coherence, maintain consistency with the information and interpretations presented throughout the case report. Recapitulate the key points discussed in the main body and reinforce the main messages. Avoid introducing new ideas or information that deviates from the established narrative.

# FINE-TUNING THE CASE REPORT: EDITING, FORMATTING, AND REFERENCES

Fine-tuning the case report through editing, formatting, and referencing is crucial to ensure clarity, readability, and adherence to the journal's guidelines.

Here's a checklist for fine-tuning your case report through editing, formatting, and referencing:

## Proofreading and Grammar:

- Check for grammar, spelling, punctuation, and sentence structure errors.
- Ensure clarity, coherence, and logical flow of ideas.
- Verify the accuracy of information presented.

## Formatting and Structure:

- Follow the journal's guidelines for font style, size, line spacing, and margins.
- Ensure consistent formatting throughout the document.
- Use headings and subheadings to organize content.

# Consistent Style and Terminology:

- Maintain consistent style, terminology, and abbreviations.
- Use standard medical terminology and avoid excessive jargon.
- Define abbreviations upon first use and use them consistently.

# Figures and Tables:

- Check the clarity and accuracy of figures, images, and tables.
- Ensure proper labeling and referencing in the text.
- Format captions according to the journal's guidelines.

#### Citations and References:

- Verify that all sources cited in the text are included in the reference list.
- Check that all references are properly formatted according to the journal's guidelines.
- Ensure consistency in the citation style throughout the document.

#### **Ethical Considerations:**

- Ensure patient confidentiality and anonymity.
- Obtain informed consent and adhere to ethical guidelines.
- De-identify personal information and protect patient privacy.

#### Feedback and Peer Review:

- Seek feedback from colleagues, mentors, or subject matter experts.
- Consider their suggestions for improvement.
- Address peer reviewers' comments professionally when revising.

#### Final Review:

- Conduct a final review before submission.
- Check that all revisions have been made and feedback addressed.
- Ensure adherence to the journal's guidelines and requirements.

#### Reference Check:

- Verify that all references are accurate, complete, and properly cited.
- Cross-check the reference list with in-text citations.

#### **AVOIDING PLAGIARISM IN CASE REPORTS**

Plagiarism is a serious academic misconduct that involves using someone else's work, ideas, or words without proper attribution. To avoid plagiarism and ensure ethical writing, here's a checklist you can follow:

Understand what constitutes plagiarism: Familiarize yourself with the different forms of plagiarism, including direct copying, paraphrasing without proper citation, and presenting someone else's ideas as your own.

Use proper citations: Whenever you use someone else's ideas, data, or words, make sure to provide proper citations. Follow the appropriate citation style recommended by your institution or the journal you are submitting to (e.g., APA, MLA, Chicago).

Paraphrase effectively: If you want to include information from a source but rephrase it in your own words, ensure that you still give credit to the original source by providing an in-text citation. Paraphrase accurately and do not simply replace a few words or sentence structures while retaining the original meaning.

Understand common knowledge: Common knowledge refers to information widely known and accepted within a field. You do not need to provide a citation for common knowledge. However, if in doubt, it is better to cite the source to avoid unintentional plagiarism.

Manage reference list properly: Create a comprehensive reference list that includes all the sources you have cited in your work. Ensure that the references are accurate, complete, and formatted correctly according to the appropriate citation style.

Use plagiarism detection tools: Consider using plagiarism detection software or online tools to check your work for unintentional

plagiarism. These tools can help identify instances where your writing closely matches existing sources. Kindly refrain using free online tools available over internet. They are predatory. While working in our projects, we take care of all these checks.

**Seek guidance if unsure:** If you are uncertain about how to properly cite or attribute a source, seek guidance from your instructor or mentor. They can help and clarify any doubts you may have.

Develop good research and writing practices: Cultivate good habits that promote ethical writing, such as taking detailed notes while conducting research, organizing your sources, and citing them properly from the outset.



# FUNDAMENTALS OF IN-TEXT CITATIONS AND REFERENCES IN CASE REPORTS

Properly citing and attributing sources is crucial to maintain academic integrity and give credit to the original authors in your case report.

Some guidelines to follow when citing and attributing sources:

1. In-text citations: Whenever you use information, ideas, or quotes from a specific source, include an in-text citation within the text of your case report. This helps the reader identify the source of the information. The format of the in-text citation depends on the citation style you are using (e.g., APA, MLA, Chicago). Typically, it includes the author's last name and the year of publication.

# In-text citations

School-aged youth around the world report witnessing and experiencing bullying at varying rates (Eslea et al., 2003). For example, researchers report that one in six Australian children experiences bullying on a weekly basis (Rigby, 2002). Studies conducted in Sweden and Norway found that 15% of students reported bullying incidences at least two times per month (Olweus, 1993). In the United States, studies report 10% to 33% of students being victimized by peers and 5% to 13% admitting to bullying others (Hymel & Swearer, 2015). Despite the global frequency of bullying in schools

APA style in-text citation.

2. **Reference list:** Include a comprehensive reference list at the end of your case report. This section provides detailed information about each source cited in your report. The format and style of the reference list will depend on the citation style you are following. Include the author(s), title, publication year, journal

or book title, page numbers, and any other required information based on the citation style.

Example (APA style):

Smith, J. (2019). Title of the article. Journal of Medical Sciences, 14(3), 40-55.

Direct quotations: When directly quoting a source, use quotation marks to indicate the exact words of the author. Immediately following the quotation, include an in-text citation to attribute the quote to the original source.

Example:

According to Johnson (2018), "quote goes here" (p. 67).

3. **Paraphrasing:** Paraphrasing involves restating someone else's ideas or information in your own words. Even when you paraphrase, you must provide an in-text citation to attribute the ideas to the original source. It is not sufficient to simply change a few words or sentence structures.

Example:

Original source: "Quote goes here" (Smith, 2019, p. 45). Paraphrased: According to Smith (2019), the concept is described as [rephrase in your own words] (p. 45).

4. **Multiple authors:** When a source has multiple authors, include all the authors' last names in the in-text citation for the first occurrence. For subsequent citations, use et al. after the first author's last name.

Example:

First citation: (Smith, Johnson, & Brown, 2020)

Subsequent citations: (Smith et al., 2020)

#### Commonly Asked Questions about Citations:

# Q: How do I know which citation style to use?

A: The citation style you use depends on the guidelines provided by your institution or the journal you're submitting to. Check the specific requirements or consult your professor or supervisor for guidance.

# Q: What information do I need to include in a citation?

A: A citation typically includes the author(s), title of the work, publication date, journal or book title, and page numbers. The exact format and order of these elements depend on the citation style you are using.

## Q: How do I properly format in-text citations?

A: In-text citations usually include the author's last name and the publication year within parentheses. Place the citation immediately after the information you have taken from the source, either as a direct quote or paraphrase.

# Q: How do I cite sources with multiple authors?

A: For sources with multiple authors, include all the authors' last names in the first citation. For subsequent citations, use the first author's last name followed by "et al." (Latin for "and others"). "Et al." is used when there are three or more authors for a source. Instead of listing all the authors' names, only the first author's name is mentioned, followed by "et al." to indicate the presence of additional authors.

#### Q: How do I cite sources with no author?

A: If a source has no author, use the title of the work in place of the author's name. It is advisable to consult the specific citation style guidelines for the correct format.

#### O: How do I cite sources that are websites or online articles?

A: When citing websites or online articles, include the author (if available), the title of the web page or article, the website name, the publication date (if available), and the URL or DOI (if applicable). Again, refer to the citation style guide for precise formatting.

# Q: How do I avoid accidental plagiarism in my citations and references?

A: To avoid accidental plagiarism, always ensure you properly attribute ideas, quotes, and information to their original sources. Use quotation marks for direct quotes and provide in-text citations and a reference list or bibliography to credit the sources you have used.

# Q: What tools can I use to make the citation process easier and more efficient?

A: There are various citation management tools available, such as EndNote, Zotero, and Mendeley, which can help you organize your references and generate citations in different styles automatically.

#### PRACTICE EXERCISES AND CASE REPORT WRITING TIPS

#### Practice Exercises:

**Read and analyze published case reports:** Choose case reports from reputable journals and critically evaluate their structure, content, and writing style. Identify the key components and note how the authors present their cases.

Write case summaries: Practice summarizing published case reports in a concise and focused manner. Summarize the patient presentation, diagnostic process, treatment approach, and outcomes in a few paragraphs. You can refer to the previous sections of this module to understand and learn on how to write effectively.

**Develop case report outlines:** Create outlines for hypothetical case reports. Outline the key sections such as introduction, case presentation, discussion, and conclusion. Identify the main points you would address in each section.

Write case report sections: Practice writing individual sections of a case report, such as the introduction, case presentation, or discussion. Focus on clarity, coherence, and incorporating relevant information.

**Seek feedback:** Share your practice case reports or sections with peers, mentors, or instructors to obtain feedback and suggestions for improvement. Consider their insights and revise accordingly.

Tips on how to read and analysed published case report mindfully:

Select reputable journals: Choose case reports from well-established, peer-reviewed medical journals. These journals typically maintain high editorial standards and publish quality case reports.

Understand the objective: Identify the purpose or objective of the case report you are reading. Determine whether it aims to present a rare condition, describe an unusual presentation, highlight a unique treatment approach, or contribute to medical knowledge in some other way.

**Skim through the entire report:** Start by quickly skimming through the case report to get an overview of its structure and content. Note the headings, subheadings, and key sections such as introduction, case presentation, discussion, and conclusion.

Focus on the introduction: Pay attention to the introduction section, as it sets the stage for the case report. Identify how the authors introduce the case, provide background information, state the objective, and highlight the clinical significance.

Analyze the case presentation: Study how the authors present the patient's clinical history, physical examination findings, diagnostic tests, and treatment interventions. Look for details on the diagnostic process, rationale for treatment choices, and patient outcomes.

**Examine the discussion:** Analyze how the authors interpret the findings, relate them to existing literature, and discuss their clinical implications. Note how they highlight the uniqueness or educational value of the case and emphasize its contributions to medical knowledge.

**Evaluate the quality of evidence:** Assess the evidence provided in the case report. Look for supporting references, relevant clinical guidelines, or expert opinions. Evaluate the strength of the evidence and consider its impact on the conclusions drawn.

*Identify limitations and challenges:* Consider any limitations or challenges mentioned by the authors. Assess how they acknowledge and address these limitations, and if they suggest future directions for research or clinical practice.

**Reflect on the writing style:** Observe the language used, the clarity of the writing, and the organization of ideas. Note how the authors maintain a logical flow, use appropriate medical terminology, and effectively communicate complex information.

Seek different perspectives: Discuss the case report with colleagues, mentors, or subject matter experts. Share your observations and seek their insights and interpretations. Engage in discussions to gain a broader understanding of the case and its implications.

*Take notes:* While reading, make notes of key points, interesting findings, or questions that arise. Summarize the main aspects of the case report to consolidate your understanding and facilitate later reference.

**Read multiple case reports:** Read case reports from diverse medical specialties and various types of cases (e.g., diagnostic challenges, rare diseases, treatment complications). This broadens your exposure and helps you identify common patterns or unique approaches.

# CASE REPORT EXAMPLES: ANALYSING WELL-WRITTEN REPORTS FOR INSPIRATION

Analysing well-written case report examples can provide valuable inspiration and guidance for your own case report writing.

Few suggestions for finding and analysing such examples:

Medical Journals: Explore reputable medical journals that publish case reports in your field of interest. Look for case reports that are well-cited, have been well-received, or have received recognition or awards. Pay attention to journals known for their high editorial standards and rigorous peer-review processes.

Specialty-Specific Databases: Some medical specialties have dedicated databases or repositories for case reports. For example, the Journal of Medical Case Reports, BMJ Case Reports, or the Case Reports section of specialty-specific journals. These databases often have a wide range of case report examples to explore.

Professional Conferences: Attend conferences or symposiums related to your field of interest. Many conferences feature presentations or poster sessions where authors present their case reports. Engage in discussions with the authors and fellow attendees to gain insights into their case report writing approaches.

Online Case Report Collections: Several online platforms or websites curate collections of case reports. Examples include Medscape, PubMed Central (PMC), or specific medical society websites. These platforms often provide access to a diverse range of case reports that can serve as valuable examples.

Once you have identified well-written case reports, here are some key points to consider while analyzing them:

Structure and Organization: Pay attention to the overall structure and organization of the case report. Note how the sections flow and connect with each other, such as the introduction, case presentation, discussion, and conclusion. Identify how the authors present the information in a clear and logical manner.

*Introduction:* Analyze how the authors introduce the case, provide relevant background information, and state the objective or purpose of the case report. Note the clarity of the introduction and how it captures the reader's attention.

Case Presentation: Examine how the authors present the patient's clinical history, examination findings, diagnostic process, treatment interventions, and outcomes. Note how they include pertinent details while maintaining brevity and focus.

Discussion and Interpretation: Evaluate how the authors interpret the findings, relate them to existing literature, and discuss their clinical implications. Look for critical analysis, logical reasoning, and connections made between the case and broader medical knowledge.

*Use of Evidence:* Assess the quality and quantity of evidence provided in the case report. Note how the authors support their interpretations and conclusions with relevant references, clinical guidelines, or expert opinions.

Language and Writing Style: Analyze the clarity, conciseness, and coherence of the writing. Note the use of appropriate medical terminology, avoidance of jargon, and effective communication of complex concepts.

**Educational Value:** Consider how the authors highlight the uniqueness, educational value, or clinical relevance of the case.

Remember, while analysing case reports for inspiration, it's important to respect copyright laws and the intellectual property of the authors. Use the examples to learn from their writing style, structure, and presentation, but always provide proper citations and references when referring to or quoting from published case reports.

