

# Instructions for the Writing and Evaluation of ACVN Case Reports

The ACVN® reserves the right to modify, update and make changes to the Candidate instructions and guidelines at any time at the approval of the Executive Board; however, it is the Candidate's responsibility to access the instructions listed on the ACVN website ([www.acvn.org](http://www.acvn.org)) after February 1<sup>st</sup> for the most up-to-date instructions that will apply for the year in which the Candidate will submit Case Reports. Three Case Reports must be found acceptable according to Credentials Committee criteria in order to be declared eligible for the certifying ACVN examination (Bylaws Article VI, Section 2.b.4). There are two types of Case Reports: Preliminary Case Reports and those Case Reports submitted as part of a Credentials Application.

## **PRELIMINARY CASE REPORT**

A Candidate who has not previously submitted an ACVN Credentials Application may submit one Preliminary Case Report. A Candidate may submit only one Case Report for review as a Preliminary Case Report. The Preliminary Case Report deadline is April 1 by 11:59 PM Eastern Time of each year.

## **CASE REPORTS SUBMITTED AS PART OF CREDENTIALS APPLICATION**

A maximum of three Case Reports will be reviewed per Credentials Application. The Credentials Application deadline is August 15 by 11:59 PM Eastern Time of each year. There is no limit on the number of times a Candidate may submit a Credentials Application.

## **AUTHORSHIP OF CASE REPORTS**

Case Reports submitted as part of the Credentials Application must be the sole work of the Candidate. The Candidate is not allowed to have any help or aid in writing, preparing, or correcting the Case Report or the initial Preliminary Case Report submission.

**PLEASE NOTE:** Case Reports **MUST NOT** be reviewed by any individual, other than the Candidate, for content, grammar, spelling, or syntactic correction.

## **1 THE PURPOSE OF CASE REPORTS IS TO DEMONSTRATE:**

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1. The Candidate has been working in veterinary clinical nutrition and is adequately prepared to take the Credentialing Examination.
2. The Candidate's ability to clearly and effectively communicate data to colleagues in a clear, organized scientific manner.
3. The Candidate's ability to apply clinical reasoning in a case-based format, including documentation to justify their nutritional approach with appropriate references and explanations. Cases must have major nutritional component(s) beyond that expected of a non-ACVN Diplomate.

4. The Candidate has personal experience and competency in the application of accepted nutritional principles in the diagnosis, treatment, and/or prevention of animal disease.
5. Each Case Report must include:
  - a. Nutritional assessments of the patient(s) before, during, and after interventions, and results of diagnostic tests that support the nutritional assessments.
  - b. Details and rationale of the development and implementation of a nutritional plan. Lack of use of specific applicable nutritional strategies must also be justified.
  - c. Literature-based application of nutritional principles.
  - d. Results of monitoring, re-assessment and modifications made to the nutritional plan.
  - e. Outcomes of nutritional interventions and any modification of the nutritional plan.
  - f. A unique individual, herd, or population with different nutritionally managed condition(s) than the other two accepted Case Reports.

## **2 GUIDELINES FOR SELECTION OF CASES:**

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1. Cases must demonstrate competency in veterinary nutrition beyond that expected of a non-ACVN Diplomate. See 'Expected Skills of ACVN Diplomates' in the Training Program Information Guide and Expected Skills at [www.acvn.org](http://www.acvn.org). These reports should emphasize the dietary and nutritional aspects of the clinical case, and less the medical and surgical aspects. The reports are not intended to demonstrate the Candidate's ability to review scientific literature or to do laboratory research, even if it has direct application to veterinary clinical nutrition.
2. Cases selected must reflect the species track that the Candidate has elected for examination as defined by the Training Program Information Guide and Expected Skills (available at [www.acvn.org](http://www.acvn.org)). Candidates electing to be examined in the comparative track should include at least one small animal and at least one large animal case.
3. Teleconsultation is defined as the entire nutritional management of a patient from initial assessment through subsequent follow-up care being done through electronic means of assessment and communication. In these situations the Candidate never examines the patient in-person and relies solely on the referring practitioner and/or client assessments of the patient. Use of a teleconsultation case as an ACVN Case Report can be inherently more challenging as this limits the Candidate's ability to demonstrate personal competency in the nutritional assessment of the patient(s) before, during, and after interventions since all physical assessments will be entirely dependent on another's (e.g., referring practitioner, client) observations. Such a case conducted entirely through teleconsultation must provide information that is thorough, accurate and sufficient in all aspects of case management (i.e., include a complete physical examination, dietary history, laboratory work up for the initial and all follow-up evaluations). All the necessary information as if compiled during an in-person visit must be obtained in order to be a suitable Case Report. Methods of communication must be clearly stated (e.g., conducted by phone with the owner or by email with referring veterinarian). This also applies to cases in which the initial examination and assessment occurred in person and subsequent follow-up assessments were done as teleconsultations.

- a. Cases that utilize teleconsulting can be submitted as Case Reports; however, are limited to no more than two of the final three accepted Case Reports from a Candidate.
4. The three Case Reports found acceptable for an individual Candidate must demonstrate the Candidate's ability to manage at least three different clinical cases or herd problems having significant nutritional component(s) that are unique from one another and in which the Candidate has personally recommended and managed the nutritional aspects of the case.

**Example of Problematic Submissions:**

- a. A case of cardiomyopathy due to selenium deficiency in lambs and another in dogs.
    - i. Only one case would be accepted because the etiopathogenesis of selenium deficiency is the same for both patients; the other case would be rejected even if meeting all other submission criteria.
5. The nutritional components of the cases must demonstrate the Candidate's thoroughness, logic and accuracy in nutritional assessment, intervention, and monitoring of the cases.
  6. The nutritional aspects of the Case Report must reflect the work of the Candidate, although others may have been responsible for other aspects of the case (e.g., internist, surgeon, etc.). The Case Report must reflect the Candidate's specific input and thought processes on the case. No one may help the Candidate write the report by reading, reviewing or editing the report prior to submission. The report is to be the sole work of the Candidate, although all aspects of case management should be under the guidance of an ACVN mentor.

**Exception:**

- a. For a Preliminary Case Report, the Credentials Committee will provide feedback to the Candidate. The Candidate may subsequently resubmit the failed Preliminary Case Report one time as part of an official Credentials Application.
  - b. Candidates are allowed to review the Summary of Reviewer Comments and the failed Preliminary Case Report with their mentors, but the Candidate must complete all revisions on their own. Once the Candidate begins revisions to the failed Preliminary Case Report, no one including the mentor can be involved in the process and cannot assist in the revision.
  - c. The Preliminary Case Report option is only available to Candidates submitting their Credentials Application for the first time to gain insight on the review process.
7. The Candidate is expected to be primarily responsible for the nutritional management of the case under mentor guidance, while other responsibilities for the case may remain with another veterinarian or veterinary specialist. The Candidate is expected to demonstrate an understanding of all aspects of the case, and should clearly point out any case decisions that were made by another individual, including diagnostic tests, nutritional management

and treatments before receiving the case.

- a. The focus of the Case Report is on nutrition. Many cases involve complicated medical issues with long histories, and while it is important to introduce the case including medical and/or surgical management, the reviewers are most interested in the Candidate's contribution to case management and making sure the Candidate understands the nutritional needs of the case in the context of the medical and/or surgical issues.
- b. The Candidate should discuss previous nutritional management of the case in terms of whether that initial management was appropriate and why or why not. The Candidate's role in case management versus that of the attending medical or surgical care providers should be clearly delineated.
- c. It is expected that the writing of the report will be original and focused on that of the Candidate's work regardless of other veterinarians' involvement.

**Examples of Stating Candidate Case Involvement:**

- i. Consider using a case timeline relative to the Candidate's involvement or first hospital admission. Use a consistent timeline within the text that is carried over to tables and figures. For example: "Day 1 " indicating the first day of Candidate involvement.
  - ii. Use consistent timeline designations. For example: If "5 days post ICU admission" is written in the text, do not use dates (12/16/2016) in a table showing blood work.
  - iii. Provide the history in an accurate, succinct narrative providing only the pertinent information and avoid long non-essential narratives on case background and history. An accepted Case Report balances discussions of the rationale for nutritional interventions based on an understanding of pathophysiology of disease and medical management.
8. Previously published reports cannot be used to fulfill this requirement; however, there are no restrictions on submitting a Case Report for publication after the Credentials Committee's review has been completed.
9. To aid in selection of potential cases it is suggested to keep track of a minimum of 6 cases throughout the Candidate's clinical experiences as potential Case Reports, Cases that do not demonstrate the Candidate's abilities as a clinical nutritionist, do not have ample follow-up, or have insufficient owner adherence should be discarded and replaced. Consider writing the reports at least 6 months ahead of the due date with no regard to the page limit, set them aside after a writing session, and come back to them later. With repeated edits and refinement, the report will become succinct.
- a. The Candidate should be involved early enough in the process to have a significant impact on the case and its outcome.

**Examples of Problematic Case Selection:**

- i. The internal medicine clinician places a gastrostomy tube in a dog with esophageal stricture and initiates assisted enteral feeding. Two weeks

later, the Candidate is consulted because the patient is losing weight. The Candidate assesses the calories being fed and decides to increase caloric intake. Two weeks later, the dog has gained back the weight and is doing well. *In this example, the Candidate's nutritional involvement was minor and does not demonstrate their abilities as a nutrition specialist.*

- b. The Candidate should choose cases that demonstrate a high level of nutritional intervention/involvement and knowledge, which can be well described and complete within the required space limitations.

**Example of Problematically Low Involvement:**

- i. A case where the primary clinician repeatedly disregards the Candidate's recommendations, or owners do not adhere to the recommendations at all or in large part, does not allow for the Candidate to demonstrate their abilities as a clinical nutritionist as key recommendations were not implemented.
- c. Any minor deviations from the initial plan and recommendations that do not significantly impact the outcome should be clearly explained. In such situations, the Candidate should state their recommendations and explain their reasoning for that recommendation, why their recommendations were not followed, and how they worked around that limitation.
  - i. It is common, however, for some nutritional recommendations to be altered to a minor degree. For example, alterations in food texture (e.g. canned to dry of the same nutritional profile) would be acceptable in the context of a Case Report.
  - ii. Deviations in monitoring from what may constitute “best practices” should also be clearly explained. For example, in a parenteral nutrition (PN) case at high risk for refeeding syndrome, the Candidate recommended checking electrolytes 24 hours after initiating PN. The clinician managing the case elected not to check electrolytes until 48 hours due to financial concerns of the owner.
- d. Use cases where key diagnostic testing has been performed and avoid cases where critical diagnostics were omitted as this can make nutritional management decisions more difficult to defend or outcomes more difficult to monitor.
- e. Always include a differential or rule out list, if applicable, because it is unrealistic in most cases to run every test desired due to common constraints (e.g. time, money, access, practicality, and risks).

**Example of Suitable Diagnostic Omission:**

1. A definitive diagnosis of pancreatitis is difficult without a biopsy, but that is rarely practical. It is recommended to complete as many indicated diagnostic tests as possible, and describe clinical signs and follow-up data that continue to support the top differential of pancreatitis (and state this as a limitation).

- ii. Acceptable cases are those in which both a minimum database (complete blood count, serum biochemistry, and complete urinalysis) and key diagnostics were performed initially and at follow-up time points. If there were additional tests that should have been performed to confirm the diagnosis or to support response to nutrition intervention, consider selection of another case or attempt to justify the absence of those test results. Cases lacking adequate initial diagnostics and subsequent follow-up are unlikely to be successful Case Reports.

**Examples of Acceptable Case Selection Despite Limited Diagnostics:**

1. In a case of thiamine deficiency, it is important to measure thiamine status in the patient (unless there is a pathognomonic clinical sign that is so characteristic of a disease that it can be used to make a diagnosis and document resolution of the clinical sign (or laboratory abnormality) with specific treatment).
  2. In a case of chronic kidney disease, it may have been prudent to perform ultrasound of the kidneys to rule out certain causes of renal dysfunction, but constraints may have precluded performing that test. In such a case, state that the Candidate would have liked to have an ultrasound evaluation and why/how that information would have made a difference to the plan (e.g., rule out renal tumors, renal pelvic stones, ureter blockage, etc.).
- f. If there is inadequate follow up to demonstrate the outcome of the Candidate's nutritional recommendations for whatever reason (e.g., lost contact with owner, the case was received shortly before Case Report deadline, etc.), the case is not suitable for write up and submission as a Case Report.
- i. Cases should have reassessments with substantive data on the parameters the Candidate chose to monitor. A minimum of one to two follow-up time points with full reassessments strengthens the report and allows full fruition of the Candidate's nutritional plan to become evident.
  - ii. Follow ups should be proactive (as opposed to passive) on the Candidate's part. The reason for a reassessment should be Candidate recommended follow-up and not the result of the owner or clinician contacting the Candidate only when there is a problem.
  - iii. Body weight, BCS and MCS, laboratory and diagnostic follow-up, and all pertinent physical examination findings at each time point to demonstrate the effectiveness of the nutritional plan should be included. This should occur whether the patient was seen in-person or via teleconsultation.
  - iv. It is essential to demonstrate that the Candidate's nutritional plan had a positive impact on the patient(s).

**Examples of Problematic Case Follow-up:**

1. A cat with inflammatory bowel disease that was started on steroids and had a diet change around the same time is not a good case to select because one cannot differentiate the effect on clinical signs

due to diet vs. the effects of steroids.

**Examples of Successful Case Follow-up:**

1. A dog with urolithiasis managed with diet and with clear documentation in the report of no urolith recurrence in a sufficient time frame to see effect of Candidate's intervention (e.g., ultrasound six to 12 months later to demonstrate that the diet reduced the incidence of stone formation that historically had reoccurred every 3 months).

### **3 STYLE AND FORMAT OF CASE REPORTS:**

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1. The Case Report is to be written in English using a third-person past tense narrative style using professional language, with attention given to editorial detail as if the work was to be submitted for a peer-reviewed publication. Unprofessional language, medical slang, local jargon are not allowed.
2. The Case Report is to be constructed so that major emphasis is given to the rationale and justification for diagnostic and therapeutic nutritional procedures. The narrative must be succinct, but give adequate consideration to differential diagnoses, alternative courses of investigation and therapy, and justification for the course of action selected. However, enough information on the medical aspects is important to include to allow reviewers to adequately understand the case.
3. Case Reports are anonymous. The personal identifying information including names of persons or animals; clinics or hospitals; places (city, state, and country); case numbers; and any other identifying marks in the title, text, tables, figures and any other supporting material must not be used. Case reports in which this identifying information is found will automatically fail.
4. Format of Case Report:
  - a. Page and line numbers
    - i. The total number of pages in the Case Report must not exceed 15 (including the title page).
    - ii. All pages must be numbered in the upper right hand corner within the top margin (header) using 'page # of #' including title page (e.g., title page is marked "Page 1 of (X)").
    - iii. All lines of text must be sequentially numbered (i.e., line numbering does not restart on each new page).
    - iv. Reference list, tables and figure pages are not line numbered.
  - b. Organization within the Case Reports is in this order:
    - i. Title page
    - ii. Body of Text
    - iii. Endnotes
    - iv. Reference Citations
    - v. Tables and/or Figures

c. Title Page

- i. Includes the Case Report title and a case summary of less than 100 words using line spacing of 1.0, Times New Roman font size 12, color black.
- ii. The case summary font style is regular and left justified within top, bottom and side margins of 2.5 cm (one inch).
- iii. The case title font style is bold and centered horizontally.
- iv. All abbreviations used in the Case Report, except for AVMA Journals Style Standard Abbreviations (<https://www.avma.org/News/Journals/Documents/AVMA-Journals-Style-Standard-Abbreviations.pdf>) and units of measure should be listed in alphabetical order on the title page, below the case summary, along with their definitions. These abbreviations can be used in the text, figures, and tables without expansion. When starting a sentence, all abbreviations should be expanded.
  1. Abbreviations should be based on professional language, such as that found in Standard Abbreviations for Veterinary Medical Records, 3rd ed, American Animal Hospital Association. 2010. ISBN: 978-1-58326-144-6. See <https://epdf.tips/standard-abbreviations-for-veterinary-medical-records.html>.
  2. Non-standard abbreviations such as O for owner, P for patient, C for Candidate, and chem for chemistry are not allowed.
- v. This page is to be marked as the first page.

d. Body of Text (maximum of 4000 words)

- i. Begins on page two and is limited to a total of 4000 words with single-sided text using line spacing of 1.0, Times New Roman font size 12, font style regular, color black
- ii. Text is to be left justified with margins of 2.5 cm (one inch) at top, bottom and sides.
- iii. The text is written in English and in the third person past tense.
  1. Case Reports must be submitted in English using American spelling and must be grammatically correct.
    - a. For grammatical help, consider <https://www.grammar-monster.com/>.
  2. Paragraphs must be separated by subheadings, a blank line or a five space indentation.
  3. Laboratory values should be reported in conventional (US) units. Analyte concentrations should always be expressed in conventional units (e.g., mg/dL, g/L) but authors may also include Système International (SI) units (e.g., mmol/L,  $\mu$ mol/L) if desired. If confusion could result, include SI measurement systems in parentheses.
  4. With the exception of laboratory values as discussed above, all measurements should be expressed in metric units.
  5. All dates used must be written as month/day/year.



6. Italics are used for bacterial and viral taxa at the level of family and below. All bacterial and many viral genes are italicized. Serovars of *Salmonella enterica* are not italicized.
7. The Candidate may refer to her- or himself as the “Candidate” in the body of the Case Report.
8. Numbers less than 10 in the text (not in tables or figures) are written as words unless pertaining to time (e.g., two diets were mixed and fed on day 3) or used as the start of a sentence (e.g., Twelve days later); whereas numbers > 10 are written as numerals (e.g., 1046 kcal/day). Calculations are written in brackets [ ] and concentrations in parentheses ( ).

e. Endnotes

- i. Endnotes are used for ancillary information such as:
  1. Abstracts, presentations, posters, online databases, theses/dissertations, and computer software (statistical, ration balancing, etc). For example:
    - a. Spear, JK. Development of the oral microbiome in kittens. Poster session at: Annual Companion Animal Nutrition Summit: 2017 May 4-6; Vancouver, Canada
    - b. Agricultural Software Consultants Inc. MixitWin. Version 10. San Diego, CA. 2017. Available from: <http://www.agriculturalsoftwareconsultants.com/mixit-win>
  2. Personal communications: note person and date. For example:
    - a. Pfizer Veterinary Representative Dr. A Smith by phone on April 1, 2017.
  3. Products: pet food, large animal feeds, drugs, laboratory test and equipment, if needed. For example:
    - a. Hill’s Prescription Diet® w/d Canine with Chicken, dry, Hill’s Pet Nutrition, Inc., Topeka, KS. 2.921 kcal/g as fed with 58 g protein/Mcal, 2014 product guide.
    - b. Vetmedin® (pimobendan) 5 mg tablet, Boehringer Ingelheim, St. Joseph, MO.
- ii. Endnotes are referenced with superscripted lowercase letters in the text only at first mention in the text and then listed alphabetically in an endnote section after the Body of Text and before the Reference Citations.
- iii. The endnote text contains no less than 1.0 line spacing within an item and between endnotes using Times New Roman 11 font size, font style regular, color black, left justified within page margins and all information must be legible. Subsequent line indentation of 0.2” improves readability. For example:

a Mighty Fast Track Horse Sweet Feed, St. Louis, MO with 4958 kcal/kg DM, 24.7% protein and 35.8% fat.
- iv. If more than 26 endnotes are required, continue the sequence with double

letters (e.g., y, z, aa, bb). For pet food products and drugs, provide complete information in the endnote, including manufacturer's name and location [i.e., city, state, and country (if other than the United States)].

1. For pet food products report the product guide date, (the date on which the company website was accessed, or the date on which the company was contacted) to timestamp the nutrient profile and ingredients as products profiles can change over time.
2. For drugs, provide brand and/or generic names and concentrations.
3. Equipment should be included in the endnote only if essential to the outcome of the case.

f. Reference Citations

- i. Reference citations in the order as first mentioned in the text.
- ii. Citing all the literature that covers a particular subject is not recommended. Primary literature sources should be used where possible; however, when information is general knowledge or where there is no evidence but only expert opinion or consensus of opinion (e.g., a nutrient concentration for which no primary definitive study is available in the species of interest), the citation of chapters or review articles is allowable.
- iii. The citation list contains no less than 1.0 line spacing within an item and between notes using Times New Roman, 11 font size, font style regular, color black, left justified within page margins. Subsequent line indentation of 0.2" improves readability.
- iv. Use the Vancouver citation method where citations are referenced sequentially using superscript numbers at the end of the sentence within the text after the sentence period (e.g., ... glycemic control.<sup>2-4</sup>). The full citation is to be listed at the end of the Case Report in order of numbered appearance using the National Library of Medicine rules for referencing style (Patrias K. Citing Medicine. 2nd ed. National Library of Medicine (US); 2007).

g. Tables and/or Figures

- i. Each table and figure must be intelligible without reference to the text and numbered in the order as first mentioned in the text.
- ii. Scanning, copying or pasting software or laboratory printouts are not allowed
- iii. Tables
  1. Tables are a compilation of data points fixed in time in the form of rows and columns. All tables must be identified with an Arabic numeral and title; using 'Table X' by first order of appearance in the text [e.g., 'The serum biochemistry data (Table 1) was assessed as'].
  2. Table title font style is bold whereas the font style of the table body is routinely regular, although a bold font style within the body may be used judiciously for distinctions, with a line spacing of no less than 1.0 using Times New Roman 11 font size, color

black. Do not use shading or background coloring.

3. Tables must be clearly identified, referred to and assessed in the text (i.e., do not include extraneous tables).
4. In reporting data, consistency is key.
  - a. Use the same unit of measurement within the same parameter (e.g., do not use both mg/dl and umol/L for creatinine; convert one if two different labs were used or use a different line for each lab in the table).
  - b. The number of decimal places implies precision of the measurement, and so use the same number of decimal places as in the lab report (e.g., specific gravities are reported as 1.xxx whereas albumin is 4.x, but BUN is a whole number (e.g., 16).
  - c. Present pertinent laboratory data in chronological order with normal reference ranges/intervals and units in the first column or row. Highlight any abnormal values, if present, by using bolding, adding and “H” or “L” next to the result, or by placing an asterisks next to the value.
    - i. Explain any and all blank or missing data in the table ( e.g., not available, no requirement or not done, etc.).
5. All abbreviations should be defined in a footnote below the table to allow for the reviewer to understand the table without reading the text of the Case Report . Footnotes (if needed) within a table use superscript symbols [\* , † , ‡ , \$ , \*\* , †† , ‡‡ , \$\$ , \*\*\* ,] listed in order of occurrence (read left to right then top to bottom) in a legend immediately below the table. Footnote symbols are restarted in each new table.

#### iv. Figures

1. Figures are illustrations of data.
  - a. A chart is a table of averages by categories (e.g. ration nutrient profiles).
  - b. A graph contains two axes showing changes over a variable (e.g. time). Each axis should be labelled and should provide the units of any value being illustrated.
  - c. A diagram is a schematic of a structure or process (e.g. calculations).
2. All figures must be identified with an Arabic numeral and title using ‘Figure X’ sequentially in the order they first appear in the text [e.g., ‘Figure 1 shows the blood glucose curve was assessed as’].
3. Figure title font style is bold whereas the font style of the body and any legend is regular with a line spacing of no less than 1.0 using Times New Roman font size no less than 11, color black. Do not use shading or background coloring.
4. Figures must be clearly identified, referred to and assessed in the

text (i.e., do not include extraneous figures).

- a. Consider a graph to demonstrate change over time (e.g., body weight or changes in key laboratory parameters such as blood glucose, albumin or BUN), but timeline and values must be readable and the time unit must be consistent.
  - b. Photos are rarely needed unless essential for making a particular point.
  - c. Radiology, ultrasound, electrocardiogram, and biopsy results should be efficiently and succinctly reported in the text, although Candidates may include images if they believe they would be important to convey essential information to the reviewers.
  - d. Data or report summaries as images are rarely needed to make the same point, but if included, they should be discussed in the text and anonymity maintained.
  - e. Published figures (tables, charts and diagrams) should not be included in the report. Body condition, muscle condition, or fecal scoring charts, etc. can be referenced in the text. Images are not needed.
5. A reviewer should be able to understand the figure without reading the text of the report so all abbreviations should be defined with a readable footnote below the figure. Footnotes (if needed) within a figure (charts, graphs or diagrams) use superscripted symbols [\*<sup>†</sup>, †<sup>‡</sup>, ‡<sup>\$</sup>, \*\*<sup>††</sup>, ††<sup>‡‡</sup>, \$\$<sup>\*\*\*</sup>,] listed in order of occurrence (read left to right then top to bottom) in a legend immediately below the figure. Footnote symbols are restarted in each new figure.
- h. If more help is needed, consider a Writing Lab or similar at a university or online:
    - i. [https://owl.purdue.edu/owl/purdue\\_owl.html](https://owl.purdue.edu/owl/purdue_owl.html)
    - ii. <https://writing.colostate.edu/>
    - iii. <https://writing.wisc.edu/Handbook/ScienceReport.html>
  - i. Any formatting issues not addressed in these instructions, or by a supervising mentor, may be queried to the Credentials Committee through the ACVN Secretary.
  - a. All Case Reports must be submitted electronically as PDF files. Reports not meeting these formatting criteria will not be further evaluated, but returned to the Candidate identifying the formatting errors. Case Reports rejected outright for formatting errors only, and not reviewed by the Credentials Committee members, may be resubmitted the following calendar year once revised even if received by the submission deadline.

## 4 CASE REPORT BODY OF TEXT SHOULD USE THE ITERATIVE PROCESS OF VETERINARY CLINICAL NUTRITION:

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1. To determine the role of nutrition under various veterinary circumstances, a systematic method should be employed to ensure that all appropriate facets of nutrition are assessed. There are three aspects to be assessed in every case:
  - a. Animal species (any and all species except humans) factors of one or a group (herd, flock, etc.),
  - b. Dietary factors: foods or feeds and supplements, with amounts and nutritional content, and if available, water source and availability.
  - c. Feeding Management: the method(s) of providing/delivering nutrition to the animal(s).
2. This process involves a repeating systemic evaluation of all three aspects affecting the nutritional status of a given animal(s), as often or as few times as needed. Therefore, the Case Report text should contain the following information:
  - a. Assessment of the animal(s) at the time of the Candidate's involvement in the case.
    - i. Describe:
      1. Signalment, including herd status, if applicable.
      2. Pertinent history, including complete diet/food/ration and changes in body weight (BW), body condition score (BCS), muscle condition score (MCS), if available for the species, and production data, if applicable to the species.
      3. Clinical signs referable to the nutritional problem(s).
      4. Physical examination findings at time of the Candidate's involvement in the case, including body weight, BCS, and MCS.
      5. Diagnostic test results that are pertinent to nutritional management.
    - ii. Discuss:
      1. Problem List/Differential Diagnosis List.
      2. Summarize etiopathogenesis of nutritional problem(s).
      3. Specific risk factors for this case or nutritional implications of disease or injury where applicable.
      4. Assessment of nutrient intakes, in particular; energy and nutrients of concern particular to the case.
      5. Other pertinent dietary factors in the case [e.g., ingredients, method of feeding, or specific factors affecting intake (e.g., weather, season, animal competition, palatability, texture, etc.)]
  - b. Assessment of the nutritional intake at the time of the Candidate's initial involvement in the case and throughout the implementation of the nutritional plan. An accurate description of the nutrient profile, including water and energy intakes, ingredients and feeding method, is needed at all noteworthy time points of the case.



- i. Describe and assess diet and nutrient intake relative to the nutritional adequacy for that animal(s).
- ii. Describe and discuss feeding methods.
- iii. Diet history is essential to Case Reports.

**Examples of Adequate Nutrition Intake Description:**

1. Candidate has designed a homemade diet for inflammatory bowel disease and suspected food allergy and the provided diet history clearly justifies use of novel ingredients and dietary formulation.
  2. Healthy adult dog that was involved in a car accident and requires a nasoesophageal feeding tube, but the owner was also hospitalized and is not immediately available for a diet history. It is not critical to have a complete diet history initially although the Candidate clearly explains the circumstances for the initial lapse in diet history details and has obtained and provided the diet history before writing up the Case Report.
  3. If the Candidate selects a commercial therapeutic diet to manage or treat a disease state, the specific attributes of that product and why those attributes were chosen must be discussed.
    - a. Stating that a particular diet is what is recommended by the manufacturer for a particular disease(s) is not sufficient justification.
      - i. Selection should be justified based on the nutrient profile and the key nutrients of concern in the patient(s). Simply stating a product has “passed AAFCO feeding trials” does not relieve the Candidate from checking and documenting specific intakes of the key nutrients of concern for their patient or that the selected diet is appropriate for the situation
    - b. If there were negative attributes to using a particular diet or product but it was the best or most suitable option available, the Candidate should explain the dietary features that were not optimal and justify the plan.
  4. Feeding method or feeding management must also be included in the diet history and with as much detail as possible; list name of the food/feed, amount, frequency and method of intake if other than voluntary intake.
    - a. Purina® CN, 1.38 kcal/ml, 35 ml q 4 h by PEG tube, providing 290 kcal/day.
    - b. Purina Mills® Enrich Supplement, 454 g q 24 h
    - c. **Note:** use of SID, BID and QID are no longer allowed.
- c. The Candidate's nutritional recommendations.
- i. Describe and justify nutritional and/or ingredient recommendations including, when appropriate:

1. Nutrition products, foods, feeds or rations.
  2. Illustrate calculations within the text, endnotes, tables or figures to demonstrate competency in nutritional formulation.
    - a. Demonstrate energy equation(s) with citation(s) [e.g., MER of 1650 kcal/d using the formula:  $MER = (BW)^{0.93} \times 62.5$  was fed.<sup>3</sup>]
    - b. Demonstrate caloric density calculation of a tube mixture, PN solution or when more than one product or feeds are fed in combination (e.g., Caloric density of final tube slurry was 1.0 kcal/ml after combining 100 g of Diet A containing 4.0 kcal/g as fed and 290 ml of water [399 kcal/390 ml total mixture]).
    - c. State complete food/feed dosages (e.g., Owners were instructed to feed 477 g/d [MER of 1650 kcal / (3.5 kcal/g)] of Diet B q 12 h for 4 days).
    - d. State nutrient concentrations not 'levels' (e.g., 'protein was reduced to 2 g/Mcal because rather than, 'a low protein diet was recommended').
    - e. State daily intake of key nutrients of concern, and compare to an appropriate standard such as NRC, AAFCO, FEDIAF or other appropriate citation (e.g., Zinc intake was set at 120% of NRC recommended allowance because...).
      - i. Used to determine the nutrient intake historically and going forward as adequate, deficient or excessive.
      - ii. State why the specific standard was selected.
      - iii. It is illustrative to include the extent of any deficiencies or excesses (e.g., 'Calcium intake was 4x the recommended maximum intake for 3 month old foals).
  3. Feeding management or method and schedules including diet transitions.
  4. Expected outcome and monitored parameters.
  5. Rationale for monitoring those parameters.
  6. Nutritional implications of concurrent medical or surgical therapies.
  7. Prognosis with regard to nutritional problem(s).
- d. Reassessment/outcome/follow-up of the case.
- i. Describe and explain how the data obtained during reassessments do/do not support the nutritional recommendations made by the Candidate, including, when appropriate:
    1. Clinical signs (new or persistent), referable to the nutritional problem(s).
    2. Physical exam findings including BW, BCS and MCS.
    3. Production data.

4. Laboratory and other clinical test results.
    5. Justification of any modifications to the nutritional plan.
  - ii. Repeat this reassessment step as often as is appropriate for the case to demonstrate the Candidate's ability as a clinical nutritionist [e.g., every 6 hours for a critically ill patient versus every 30 days for an intermediate-term goal (weight loss) versus every 6 months for a long term goal (urolith prevention)].
3. Consider using the following to accurately and fully describe and defend the management of the case:
  - a. Nutrient profiles of products, foods, feed and/or rations.
  - b. Literature citations using primary citations on pivotal key points.
  - c. Use review articles or chapters on consensus statements when information is general knowledge or where there is no evidence but only expert opinion or consensus of opinion.
  - d. Ingredients or feedstuffs attributes (positive and/or negative).
  - e. Changes in clinical signs (subjective, objective).
  - f. Changes in clinical laboratory data.
  - g. Feeding limitations in hospital, home or farm.
  - h. Financial constraints, practicality and/or essentiality.
  - i. If assisted feeding is required, fully describe feeding tube, catheter and/or parenteral feeding methods, which includes stating tube or catheter type, material and size, as well as manufacturer's name and location [i.e., city, state, and country (if other than the United States)].
  - j. Describe feed/ration delivery systems which includes equipment or software.
  - k. Computer ration balancing or formulating programs.
  - l. Published guidelines/consensus statements (International Renal Interest Society) or consensus statements (American College of Veterinary Internal Medicine Consensus Statements).
  - m. Production, performance and/or economic benefit of the recommendations.

## **5 EVALUATION OF CASE REPORTS:**

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1. All Case Reports will be evaluated in a blinded fashion by at least five ACVN Diplomates, using a pass point of greater than 60% of total possible points.
2. Case Reports containing major formatting errors (e.g., >15 pages, incorrect font type or size/margins/line spacing, and/or failure to maintain anonymity) will be automatically rejected and returned to the Candidate without a Credentials Committee review.
  - a. The documented formatting errors will be conveyed to the Candidate.
  - b. Case Reports rejected outright for formatting errors only, and not reviewed by the Credentials Committee members, may be resubmitted the following calendar year once revised even if received by the submission deadline.
3. The Case Report Grading Rubric can be viewed at [www.acvn.org](http://www.acvn.org).



4. Candidates achieving a passing grade are informed in writing that the case was acceptable. Reviewer comments, other than for Preliminary Case Reports, will not be returned to the Candidate.
5. A Summary of Reviewer Comments for all Preliminary Case Reports and any failing Case Report submitted as part of a Credentials Application will be compiled. Each summary will include the Candidate's average rubric scores and be returned to the Candidate through the ACVN Secretary.
  - a. Candidates are allowed to review the Summary of Reviewer Comments and the failed Case Reports with their mentors and are encouraged to do so.
6. If a Case Report has been reviewed by the Credentials Committee and failed (other than rejections for formatting issues), that case cannot be resubmitted in subsequent years even if rewritten.
  - a. The only exception is the one Preliminary Case Report submitted prior to a Candidate's first Credentials Application.
    - i. Only one Preliminary Case Report is allowed per Candidate, regardless of whether that case is accepted or not, and regardless of when the first Credentials Application is submitted.
    - ii. If the Preliminary Case Report achieves a score greater than 60%, the report will count as one of the required three Accepted Case Reports in a Credentials Application.
    - iii. If the Preliminary Case Report fails, the report may be edited and resubmitted one time with any subsequent Credentials Application submitted by the Candidate.
    - v. Candidates are allowed to review the Summary of Reviewer Comments and the failed Preliminary Case Report with their mentors, but the Candidate must complete all revisions on their own. Once the Candidate begins revisions to the failed Preliminary Case Report, no one including the mentor can be involved in the process and cannot assist in the revision.
    - iv. A Preliminary Case Report does not have to be resubmitted with the two remaining Case Reports.

## **6 ROLE OF THE ACVN MENTOR IN THE CASE REPORT PROCESS:**

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An ACVN mentor is not allowed to help with the actual writing of Case Reports and they should ensure the Candidate has not received help in writing the Case Reports; however, the mentor has an important role in helping the Candidate meet the Case Report requirement.

An ACVN mentor should:

1. Advise the Candidate on the suitability of a given case as an ACVN Case Report.

2. Continue to oversee the Candidate in the nutritional management of the patient(s).
3. Provide direction in the writing of a peer-reviewed scientific manuscript based on the Case Report if pursued.
4. Review the Summary of Reviewer Comments provided by the ACVN Credentials Committee for Preliminary or failed Case Reports.
  - a. The mentor may provide the Candidate with guidance regarding how to adjust the Case Report, or specific writing techniques to be used in future Case Reports, but must still ensure the revised Case Report adheres to the Authorship of Case Reports instructions (page 1).
  - b. Once the Candidate begins revisions to the failed Preliminary Case Report, the Candidate may not accept help from anyone, including the mentor.
  - c. The mentor may offer guidance on submission of any appeals of a failed Case Report result. This includes reviewing the Summary of Reviewer Comments and the failed Case Report, as well as offering suggestions on topics to address in the appeal. The written appeal, however, must be written and prepared solely by the Candidate.