The Core Content Review of Family Medicine

A Guide for the National Faculty

The Core Content Review of Family Medicine
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A Guide for the National Faculty

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A Guide for the National Faculty of The Core Content Review of Family Medicine

The Core Content Review of Family Medicine is a self-administered, self-evaluating, continuing medical education program prepared under the direction of the Connecticut and Ohio Academies of Family Physicians. It has been published continuously since 1968. The material for The Core Content Review of Family Medicine is provided by a select national faculty composed of physicians in clinical practice, leading educators from medical schools and teaching hospitals and other healthcare leaders.

We appreciate your interest in joining our distinguished national faculty. This guide will provide you with much of the information you will need to prepare and submit your questions/discussions and/or clinical set problems.

Since its inception, The Core Content Review of Family Medicine has achieved national recognition as a leader in providing high-quality, continuing medical education for family physicians, not only in the United States and Canada, but also throughout many parts of the world. The national faculty of The Core Content Review of Family Medicine contributes to the goal of providing convenient, economical and effective continuing medical education for family physicians and other primary care physicians.

The Core Content Review of Family Medicine is designed so that physicians can evaluate and expand their knowledge of key disciplines of family practice. The philosophy of The Core Content Review of Family Medicine is one of self-evaluation. Full length discussions are provided with each question so that the participant can evaluate their progress and score their own answers.

Although a question and discussion format is used, The Core Content Review of Family Medicine is not a testing vehicle. Educationally, the most important component of The Core Content Review of Family Medicine is the discussion for each question. Each question is considered an introduction to the discussion.

The original meaning of the word “physician” is teacher. Central to our role as physicians is our role as teachers to our patients and to our fellow physicians. Authorship in a publication such as The Core Content Review of Family Medicine is a testimonial to a mission of teaching and professionalism.

Members of the National Faculty submit material for review prior to publication. Material is accepted only if it is of the highest quality based on its scholarly research of the topic, use of current references and effective presentation of the material. Based on these criteria, not all submissions are accepted for publication. The Core Content Review is a peer-reviewed publication. Writing acceptable questions and discussions for The Core Content Review takes significant time and effort and should most certainly be considered a scholarly endeavor equivalent to the presentation of a paper or lecture.

Approach to Writing Question/Answer/Discussion Material

National faculty members may choose to approach question/discussion writing in different ways. We suggest that new writers consider the following steps:

1. Select the subject area. We suggest that you access the Core Content Review Author's site at authors.corecontent.com to view a list of available topics. We maintain a list of topics that have not been covered in recent issues or that are current "hot topics." We try not to repeat topics within a two-year period. Since the field of family medicine is broad, do not feel that your topic selection must be limited to only those on the author site. You may select other topics. To do so, simply go to the "Open Topics" page to submit a topic request to an editor. All requested topics will be reviewed for relevance and need. You will be contacted regarding your request within a week.

2. Research current references on your selected topic. To assist authors, The Core Content editors have broken down desired sources into tiers. First tier references must be searched for every question/discussion; second tier searches are highly recommended. While using sources like UpToDate and Stat Ref is an option for reviewing a topic prior to writing a question, please cite only primary sources for your references when available.

3. Decide the teaching points that will be the focus of the discussion. The primary teaching point should be emphasized with bold font and include a strength of recommendation rating plus the related reference. Please use the standard SORT terminology common in Family Medicine literature. (http://www.aafp.org/online/en/home/publications/journals/afp/afpsort.html)

> Example: **Levodopa is the most effective medication for motor complications (40–50 percent symptom reduction) (SOR A; Ref. 3).**

4. Begin to formulate the discussion by drafting salient points.

5. Decide on the type of question that is most appropriate for the material that you wish to present. Single-topic discussions (e.g., use of beta-blockers after myocardial infarction) are often best presented with single answer questions. Discussions involving a number of clinically related subjects (e.g., presentation of several different tick-borne diseases) may be best presented with multiple matching series questions.

6. Formulate the question and the answer options. Each single answer question should have **5 possible answers.** Please use the positive voice when asking questions; do not ask negative questions that ask for "Which of the following EXCEPT" or "Which of the following is FALSE?"

> Example: Which of the following is the BEST treatment for new onset diabetes mellitus?

7. Write the discussion. Discussions for single answer questions should be 350–400 words. If a longer discussion is necessary to cover the topic, a second question may be added.

8. Cite all of the selected references as noted in the reference section.

Writing Tips

1. Make sure that the correct and all incorrect answers are discussed. Confirm that the stated letter answer is, indeed, the correct answer. The correct answer should be discussed first and should occupy the majority of the discussion. In the case of multiple matching questions, the discussion should follow the order of the questions. The discussion should not merely be a restatement of the questions.

2. Try to use the most current and evidence-based information. Medicine changes rapidly, so it is important to use recent references and to check the accuracy and timeliness of the material that you submit. We prefer references that are no more than five years old, unless they are classic papers. References with free access to full text articles on the Internet are also favored. Articles with full text available free online should have the hyperlink added at the end of the citation with the month and year the article was last accessed.

> Example: Patel SH, Patel R. Inferior vena cava filters for recurrent thrombosis: current evidence. Tex Heart Inst J 2007; 34(2):187-94. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1894721/pdf/20070600s00011p187.pdf Accessed April 2010.

3. Check on the accuracy of numerical values (e.g., laboratory values, medication dosages) that you give. When presenting laboratory data, please give the correct units and also give the normal values in parentheses.

> Example: hematocrit, 25 mL/dL (normal, 37-47 mL/dL)

4. If you use an acronym, write out the full name followed by the acronym in parentheses. After the initial introduction, the acronym can be used alone. The full name must be introduced in both the question and the discussion.

> Example: gastroesophageal reflux disease (GERD)

5. When giving the names of medications and drugs, give the biochemical name first, followed by the brand name in parentheses. If a generic is available, the word "generic" should precede the brand-name medication in parentheses. Generic over-the-counter medications do not need to have brand names listed. It is not necessary to include the ® or the ™ symbols.

> Example: amlodipine (Norvasc)
> Example: metronidazole (generic, Flagyl)

6. Do not put numbers at the end of sentences to indicate the reference source supporting the content of the sentence. Selected references are listed following the discussion.

7. Auto numbering may be used when listing reference sources.

Question/Answer/Discussion Format

In six issues annually, The Core Content Review of Family Medicine uses a questions/answer/discussion format. There are two types of questions used as introductions to the discussions — single-best-response questions and multiple-matching-series questions.

Single-Best-Response Question

This type of question consists of a question stem and five options labeled A through E. Only one option is correct. The remaining four options must be plausible but clearly incorrect. **Each question must have exactly five answer options.** All options must be unique and not simply combinations of other options. Discussion length should be between 350 and 400 words. The discussion should include an explanation of why the other options are not correct.

EXAMPLE

DIRECTIONS: Each of the following questions or incomplete statements is followed by suggested answers or completions. Select the one best answer for each question or incomplete sentence.

In studies comparing drug-eluting coronary artery stents to bare metal stents, which of the following statements is TRUE?

A. The greatest advantage of drug-eluting stents appears to be in the reduced rates of stent thrombosis after 1 year.
B. Despite significant reductions in restenosis during the first 6 months after insertion, studies on drug-eluting stents have not consistently shown reduced rates of myocardial infarction and all-cause mortality.
C. The combination of clopidogrel (generic, Plavix) and aspirin 325 mg is recommended for 1 year following bare metal stent placement.
D. Drug-elating stents are FDA approved for use in all types of coronary artery lesions as long as the vessel diameter is large enough to support the stent.
E. Antiplatelet therapy appears to have no additional benefit beyond 1 month after stenting with drug-eluting stents.

B

DISCUSSION

Percutaneous transluminal coronary angioplasty (PTCA) is associated with high rates of restenosis - 30-50 percent within 3-6 months. The first generation of intracoronary stents introduced in the 1990s showed significantly lower rates of restenosis than PTCA alone (32 versus 42 percent in one study). The addition of antiplatelet agents and aspirin together with refinements in the stents and the stenting protocol resulted in further reductions in restenosis rates.

Drug-eluting stents (DES) release drugs such as sirolimus or paclitaxel to inhibit proliferation and migration of vascular smooth muscle cells. These stents were approved by the Food and Drug Administration (FDA)

for use in untreated coronary artery lesions <30 mm in length and with a vessel diameter of 2.50-3.75 mm. In this setting, DES have been shown to markedly reduce the incidence of in-stent restenosis by approximately 75 percent compared to bare metal stents (BMS) during the first 6 months after insertion. In practice, the use of these stents prior to March 2007 had expanded to all types of patients including those with significantly more complicated coronary artery disease than patients who were part of the FDA approval process studies. In March 2007 a study of more than 19,000 patients who received one or more stents in Sweden suggested that DES are associated with a higher death rate compared to bare metal stents 6 months after insertion. The authors of the study state: "Our findings are a cause for worry, since they indicate a continuous increase of approximately 0.5 to 1.0 percent per year in the incidence of death or myocardial infarction after 6 months. If this increased risk is maintained during even longer periods than the 3 years of follow-up in our study, an initial gains in event rates will be superseded by the continuous loss in late events." However, an August 2007 observational study of 12, 395 patients did not show a significant difference in MI or late stent thrombosis. In this study dual antiplatelet therapy was also used for 12 months. At the time of original publication of this material, the long-term safety of DES is under further investigation.

In-stent thrombosis is a relatively rare but serious complication of percutaneous revascularization of coronary stenoses. Unlike restenosis, the frequency of in-stent thrombosis has not decreased DES compared with BMS. It is possible that the drugs intended to inhibit proliferation and migration of smooth muscle cells also inhibit endothelial cell proliferation and endothelial healing. With BMS, thrombosis rarely occurs after 1 month. With DES, thrombosis has been seen up to 3 years after implantation. In some cases, thrombosis has been associated with discontinuation of antiplatelet therapy. Current guidelines recommend the use of aspirin or clopidogrel (generic, Plavix®) for 1 month after BMS, 3 months after sirolimus- and 6 months after paclitaxel-eluting stent placement. Continuation of clopidogrel for up to 12 months may be preferred in patients who are not at high risk of bleeding (SOR C; Ref. 7).

Selected references:

1. Jensen LO, Maeng M, Kaltoft A, et al. Stent thrombosis, myocardial infarction, and death after drug-eluting and bare-metal stent coronary interventions. J AM Coll Cardiol 2007; 50:463-70.
2. Kastrati A, Dibra A, Eberle S, et al. Sirolimus-eluting stents vs paclitaxel-eluting stents in patients with coronary artery disease: meta-analysis of randomized trials. JAMA 2005; 294(7):819-25.
3. Kastrati A, Mehilli J, von Beckerath N, et al. Sirolimus-eluting stent or paclitaxel-eluting stent vs balloon angioplasty for prevention of recurrences in patients with coronary in-stent restenosis: a randomized controlled trial. JAMA 2005; 293(2):165-71.
4. Lagerqvist B, James SK, Stenestrand U, et al. Long-term outcomes with drug-eluting stents versus bare-metal stents in Sweden. N Engl J Med 2007; 356(10):1019-1019.
5. Levin T, Cutlip D. Intracoronary stent restenosis. In: Rose BD, ed, UpToDate. Waltham, MA: UpToDate2007.
6. Luscher TF, Steffel J, Eberli FR, et al. Drug-eluting stent and coronary thrombosis: biological mechanisms and clinical implications. Circulation 2007; 115(8):1051-1058.

Multiple Matching Series of Questions

The multiple matching series of questions consist of five options, labeled A through E, and a series of two or more numbered questions. Each numbered question must have only one correct option, but each lettered option may be associated with one, more than one or none of the numbered questions. Discussion length will vary depending on the number of questions and options. Generally, each numbered question will require approximately 250 words of discussion.

DIRECTIONS: The following series of questions concerns skin manifestations of streptococcal infection. For questions 1 to 4, match the lettered diagnosis that corresponds to the numbered clinical scenario. Each lettered diagnosis may be used once, more than once or not at all.

A. Impetigo
B. Erysipelas
C. Necrotizing fasciitis
D. Toxic shock syndrome
E. Scarlet fever

1. A 28-year-old male with a history of fever and chills, malaise, myalgias, nausea, vomiting and diarrhea now presents with tachycardia, tachypnea and hypotension. On examination, he has an area of redness and warmth on his forearm around a minor scratch that occurred a few days earlier at work. He also has some generalized macular erythema.

2. A 55-year-old woman presents with an area of her leg that is painful, very red and warm. The inflamed area is raised above the level of the uninvolved skin, and the demarcation between the affected and unaffected skin is sharp.

3. A 5-year-old child who had an upper respiratory infection presents with crusted lesions on the face, especially near the nose.

4. A 45-year-old construction worker with a history of diabetes mellitus presents with severe pain and diffuse redness and swelling of his leg for 2-3 days' duration. He just noticed that a "blister" has formed.

1 D
2 B
3 A
4 C

DISCUSSIONS

Toxic shock syndrome (TSS), first described in 1978 in menstruating women using super-absorbent tampons, is caused by staphylococcus. However, it is now known that there is also streptococcal toxic shock syndrome (STSS) caused primarily by group A beta-hemolytic streptococci, although other nongroup A forms have been identified also. The majority of cases occur in otherwise healthy individuals between 20 and 50 years of age, although the very young, the elderly, persons with diabetes mellitus and those who are immuno-compromised are at higher risk. The clinical presentation of STSS has many

similarities to TSS: fever, hypotension, liver and renal dysfunction, myalgias, diarrhea, vomiting, hematologic abnormalities, as well as the macular erythema followed by delayed desquamation of the palms and soles. Unlike TSS, the skin is the site of entry for the infection in 80 percent of patients. STSS skin lesions may be as mild as a scratch with some surrounding erythema and edema. In severe cases, STSS skin lesions can progress to necrotizing fasciitis and gangrene. More than 50 percent of patients with STSS will have bacteremia compared to 15 percent of patients with TSS. The mortality rate for STSS is 5 times higher than for TSS.

Erysipelas is a superficial skin cellulitis associated with lymphatic involvement that is almost always caused by group A streptococci. Erysipelas was originally seen primarily involving the face, with one third of patients having a preceding streptococcal upper respiratory infection. However, now the lower extremities are involved 70 to 80 percent of the time and only 5 to 20 percent of cases involve the face. The bacteria enter the skin via local trauma, skin conditions such as eczema or psoriasis, skin ulcers and in the neonate, the umbilical stump. Predisposing factors include venous stasis, diabetes mellitus, alcohol abuse and nephrotic syndrome. Patients present with a lesion that is bright red, edematous, indurated ("peau d'orange"), with a well-demarcated raised border. It is often accompanied by fever, elevated white blood cell count and regional lymphadenitis. Uncomplicated cases remain in the dermis and lymphatics, although occasionally deeper infections will occur. Bacteremnia occurs in 5 percent of patients. Erysipelas is recurrent in 30 percent of cases and occurs primarily in patients with venous insufficiency or preexisting lymnphedema or obstruction (i.e., postmastectomy patients).

Impetigo has two forms: bullous, most commonly caused by Staphylococcus aureus, and nonbullous, generally caused by streptococcus but often contaminated with Staphylococci. The nonbullous form accounts for 70 percent of cases. The infection is highly communicable and is seen primarily in preschool-aged children. It is caused by strains of group A streptococcus different than those that cause streptococcal pharyngitis. Impetigo has been associated with acute glornerulonephritis but not with acute rheumatic fever. However, treatment of impetigo does not alter the risk of glornerulonephritis. For the infection to occur, the integrity of the skin must be breached (i.e., chickenpox, abrasions, burns, insect bites). The lesions begin as small vesicles that progress to pustules that rupture, leaving lesions with the typical honey-colored crust. The lesions are generally less than 2 cm in diameter and are rarely painful or erythematous. The patient may experience some itching, but constitutional symptoms are usually absent. Regional adenopathy may be found in 90 percent of cases. If these lesions extend more deeply into the epidermis causing ulceration, the condition is called ecthyma. Ecthyma is usually found in the lower extremities in immunocompromised patients.

Treatment of impetigo consists of good skin hygiene with removal of the crusts. Superficial and relatively limited lesions can be treated topically with mupirocin ointment (Bactroban) TID for 2 to 3 weeks or until 1 week after the lesions heal. This treatment has been shown to be as effective as oral erythromycin. Most extensive lesions, or lesions of the scalp or mouth, may require oral antibiotics. Dicloxacillin and cephalosporins are the drugs of choice. Resistance of a significant percentage of the causative organisms to penicillin and erythromycin do not make them good choices. Other options include clarithromycin (Biaxin) and amoxicillin/clavulanate (Augmentin).

Necrotizing fasciitis is a serious, deep-seated infection of the subcutaneous tissue that results in destruction of fascia and fat. While numerous organisms can cause this entity, streptococci are a major

etiologic agent. Predisposing factors include skin injury such as bums, splinters, minor cuts, as well as surgical procedures, childbirth and blunt trauma. Predisposing patient factors include diabetes mellitus, peripheral vascular disease, steroid use and cirrhosis. Initially the patient will have an area (most commonly the extremities, with the legs more often affected than the arms) of erythema that is swollen, hot, shiny and exquisitely painful. Over the course of several days, the skin color will change from red-purple to areas of blue-gray. If untreated, the skin will break down with the development of bullae and even gangrene. Extension of the gangrene can occur along fascial lines. The swelling and edema may result in a compartment syndrome that requires urgent surgical fasciotomy. In addition, extensive debridement, and sometimes even amputation, is necessary. Since organisms other than streptococci have been found to cause necrotizing fasciitis, initial empiric antibiotic coverage should be broad spectrum.

Selected References:

1. Manders SM. Infectious disease update. Dermatol Clin 2001; 19(4): 749-756.
2. Raghavan M, Linden PK. Newer treatment options for skin and soft tissue infections. Drugs 2004; 64(15): 1621-1642.
3. Swartz MM. Cellulitis and subcutaneous tissue infections. In: Mandell GL, ed, Principles and Practice of Infectious Diseases. 5th ed. Philadelphia: Churchill Livingstone 2000:1054-1055.
4. Taylor MD, Wilson SE. Bacterial diseases of the skin. In: Rakel RE, Bope ET, eds, Conn's Current Therapy 2001. 53rd ed. Philadelphia: WB Saunders Co., 2001:841-842.

References

1. Core Content Editors have broken down desired sources into tiers. First tier references must be searched for every question/discussion. Second tier references include highly reputable journals. We try to avoid non-peer reviewed publications, throw away journals and lesser-known publications.

Tier 1

Agency for Healthcare Research and Quality Clinical Guidelines and Evidence Reports (AHRQ) http://www.ahrq.gov/clinic/
Cochrane Database of Systematic Reviews http://www.cochrane.org/index.htm
Institute for Clinical Systems Improvement https://www.icsi.org/guidelines/
National Institute for Health and Clinical Excellence http://guidance.nice.org.uk/
Dynamed https://dynamed.com/home/

Tier 2 (examples)

AAFP Monographs or CME bulletins http://www.aafp.org/online/en/home/cme.html
Journal of the American Medical Association http://jama.ama-assn.org/
Lancet http://www.thelancet.com/
Mayo Clinic Proceedings http://www.mayoclinicproceedings.com
National Library of Medicine http://www.ncbi.nlm.nih.gov/sites/entrez?db=PubMed
New England Journal of Medicine http://content.nejm.org
British Medical Journal http://www.bmj.com
Trip Database http://www.tripdatabase.com/
Other journals of major medical associations
Chapters in the most current edition of standard textbooks

2. We prefer references that are no more than five years old, unless they are classic papers. References with free access to full text articles on the Internet are also favored.

3. Articles with full text available free online should have the hyperlink added at the end of the citation with the month and year the article was last accessed.

Example: Baglin T, Bauer K, Douketis J, et al. Duration of anticoagulant therapy after a first episode of an unprovoked pulmonary embolus or deep vein thrombosis: guidance from the SSC of the ISTH. J Thromb Haemost 2012; 10:698-702. http://onlinelibrary.wiley.com/doi/10.1111/j.1538-7836.2012.04662.x/pdf Accessed November 2015.

4. Internet resources (e.g., Centers for Disease Control, USPSTF) may be used as references. Patient-oriented websites should NOT be used.

5. Selected references should be listed at the end of the discussion.

6. Citations from secondary sources such as Medscape or UpToDate should not be used.

7. All references should be listed in alphabetical order using the first letter of the last name of the lead author. For guidelines, recommendations or consensus statements that have no stated author use the first letter in the first word in the title excluding articles (e.g., the, a).

Finding Articles

American Family Physician (http://aafp.org/afp)

1) Type your topic in the *Search AFP* box (red arrow) and press *Enter* or click on the 🔍 button.

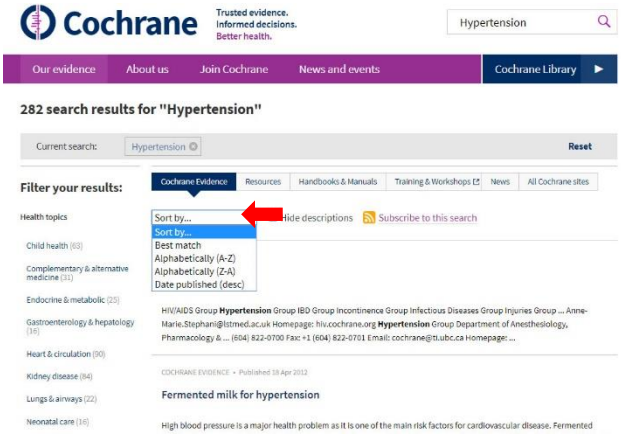
2) Results will be listed by relevance. For many topics the first listing will be for AFP by topic which contains a selection of the most relevant articles on the topic. Using the menus on left, it is possible to select articles by *Journal Topic*, *Discipline*, *Resource type*, *Content Focus, Population*, and *Date*.
3) Click on the title to load the article. If the article has a 🔑 icon, it is a recent article and you must log in to view the article.

4) You can click on the *PDF* link (red arrow) to download a copy of the article.

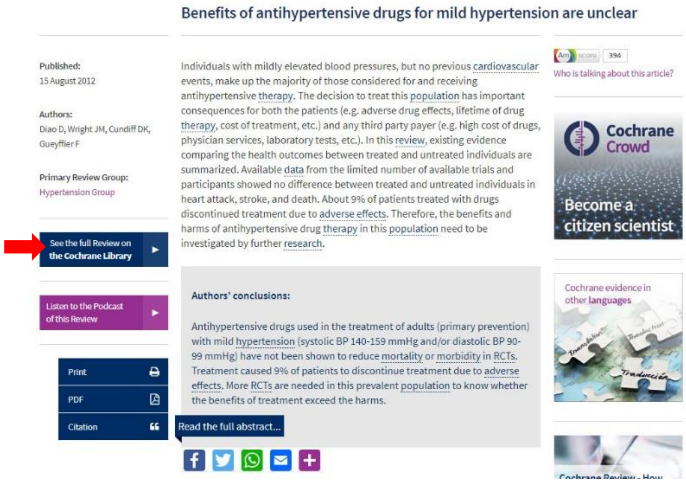
Finding Articles

Cochrane (http://www.cochrane.org/evidence)

1) Type your topic in the *Search* box (red arrow) and press Enter or click on the 🔍 button.



2) Click on *Sort by* box (red arrow) and click on *Best match*
3) Click on the title of the view the evidence

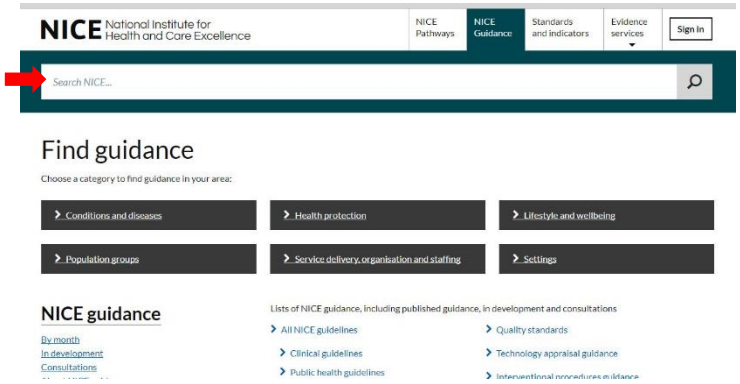


4) To view the full review, click on the *See the Full Review* button (red arrow)

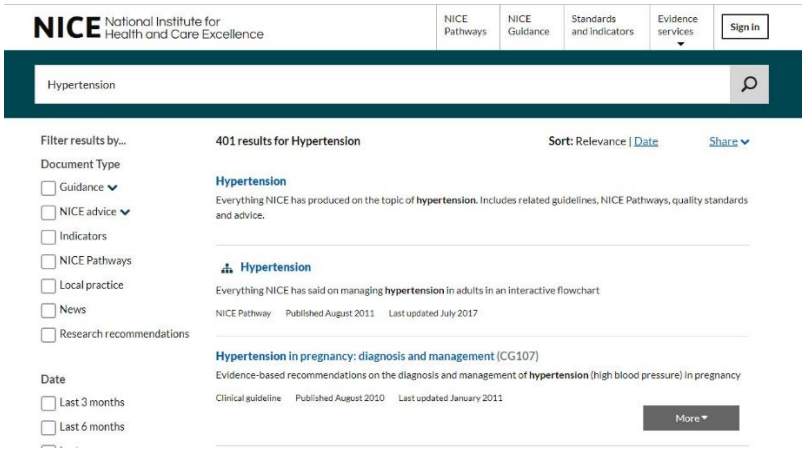
Finding Articles

National Institute for Health and Clinical Excellence

(https://www.nice.org.uk/guidance)



1) Type your topic in the *Search...* box (red arrow) and press Enter or click on the button.



2) Click on the title to view the item

3) Click on the *Download* link (red arrow) to download a pdf

How to Correctly Cite References

Journal reference

1. Authors should have last name followed by initials (without a comma between and without periods between the initials). If the reference has multiple authors, place commas between the names and a period at the end of the list. If the reference has more than three authors, cite the first three authors followed by et al. (e.g., Smith AJ, Jones FJ, Doe MG, et al.)

2. Titles of the article should have the first word capitalized, but the remaining words should start with lower case letters. The title of the article should be followed by a period.

3. The journal should be listed next. It should be listed as indexed in the National Library of Medicine (NLM). For example, The Journal of Family Practice is indexed as J Fam Pract and the New England Journal of Medicine is indexed as N Engl J Med (not NEJM). The journal abbreviations can be obtained on the PubMed Web site. Following the abbreviated name of the journal are the year of publication, a semicolon, a space, the volume number followed by the issue number in parentheses, a colon and then the inclusive page numbers followed by a period.

Examples:

1. Belch J, MacCuish A, Campbell I, et al. The prevention of progression of arterial disease and diabetes (POPADAD) trial: factorial randomised placebo controlled trial of aspirin and antioxidants in patients with diabetes and asymptomatic peripheral arterial disease. BMJ 2008; 337:a1840.
2. Ogawa H, Nakayama M, Morimoto T, et al. Low-dose aspirin for primary prevention of atherosclerotic events in patients with type 2 diabetes: a randomized controlled trial. JAMA 2008; 300(18):2134-41.

4. In the case of publications like the Morbidity Mortality Weekly Report that has no authors other than the Centers for Disease Control and Prevention, the reference should be noted as below.

Examples:

1. Advisory Committee on Immunization Practices. Recommended adult immunization schedule — US, 2010. MMWR Morb Mortal Wkly Rep 2010; 59(1): 1-4.
2. Centers for Disease Control and Prevention. Congenital syphilis — United States, 2002-2008. MMWR Morb Mortal Wkly Rep 2010; 59(14): 413-417.

Textbook References

1. Author(s) of the chapter should be listed with last name followed by initials just as with journal references (see 1 above).

2. Chapter title should follow, with the first letter of the first word capitalized, but with the remaining words in lower case letters. The chapter number is not necessary.

3. The book editor(s) is/are then listed. The names are listed in the same way as authors (last name followed by initials) followed by a comma, then “ed” or “eds” followed by a comma. The names should be preceded by “In” followed by a colon.

4. Book title is then listed with capitalization of all major words and followed by a period. The title is followed by the edition (e.g., 14thed.).

5. The city of publication is listed followed by a colon.

6. The publisher is then listed followed by a comma.

7. Date of publication is then listed followed by a colon. Page numbers are then listed followed by a period. If you are using an electronic version of a textbook that does not have page numbers, substitute "electronic version" for the page numbers (see example 2 below). No space separates the colon from the page numbers.

Examples:

1. Davis ID, Avner ED. Conditions particularly associated with hematuria. In: Behrman RE, Kleigman RM, Jenson HB, eds, Nelson Textbook of Pediatrics. 18thed. Philadelphia: WB Saunders Co., 2007:1735-1746.
2. Lum GM. Kidney and urinary tract. In: Hay WW, Levin MJ, Sondheimer JM, et al., eds, Current Pediatric Diagnosis and Treatment. 17thed. New York: Lange Medical Books/McGraw Hill, 2005: electronic version.
3. Cantrill SV. Face. In: Marx J, Hockberger R, Walls R, eds, Rosen's Emergency Medicine: Concepts and Clinical Practice. 5t ed. St. Louis: Mosby 2009:314-329.

Monographs and Booklets

Monographs and booklets may or may not have authors or editors listed. If authors are listed, they should be noted first. If no authors or editors are listed, the title of the monograph or booklet is listed first.

Examples:

1. Zuber TJ. Gastroesophageal reflux disease. Diagnosis and medical management. CME Bulletin. American Academy of Family Physicians 2003:2(5): 1-6.
2. Peterson WL. Improving the management of GERD. Evidence-based therapeutic strategies. Continuing medical education: Consensus opinion in gastroenterology. American Gastroenterological Association 2002:1-28.
3. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. National Institutes of Health.
NIH Publication No. 04-5230. December 2003.

Cochrane Database

References from the Cochrane Database will have a search term in lieu of page numbers.

Example:

1. Wong CL, Farquhar C, Roberts J, et al. Oral contraceptive pill as treatment for primary dysmenorrhoea. Cochrane Database Syst Rev 2009; 15(2):CD002120.

Reference Management

A reference management application will make it easier to collect refences and format them appropriately. An excellent free option is Mendeley (https://www.mendeley.com/). Mendeley has applications for Windows, MacOS, Linux, iPhone, and Android and web importers for Chrome, Firefox, Safari, and Internet Explorer. Mendeley also has a plug-ins for Microsoft Word, LibreOffice and BibTeX that allows you to insert references and a bibliography. Use of a reference management application is optional.

To create and account and install to your computer and browser

1) Go to https://www.mendeley.com/ and click on the *Create a free account* button
2) Enter your email address and click continue
3) Enter your first and last name and create a password, then click the *Register* button
4) Click on the *Continue to Mendeley* button
5) It is optional to enter your *Current role* and *Field of study.* Uncheck the *Make profile public* checkbox if you do not want your profile to be public, then click the *Continue to Mendeley* button or click the *Skip this step* link
6) Download the desktop app by clicking the *Download Desktop App* button. If you wish, you can down the app for your mobile device by clicking on the buttons for Apple App Store or the Google Play store
7) Click on the *Install Web Importer* link to add Mendeley to your browser

To Add a Reference from your Browser (You must have the browser plugin installed)

1) Find the article or web page you wish to add your reference list
2) Click on the Mendeley button/link in your browser
3) Sign in to Mendeley if needed
4) (Optional) Choose a folder or group to save the reference in.
5) If available, make sure that the *Download PDFs if available* check box is selected
6) Review and update if needed the information about the reference
7) Click on the save button

To Edit/Organize References

Can be done from Web Library (https://www.mendeley.com/library/), Desktop App, or mobile app

- Folders can be added using the *My Library* pane on the left — click on *Create Folder*
- References can be moved to folders by dragging and dropping them
- Clicking on the pdf icon to open the pdf of an article
- Clicking on a reference so that it shows on the right pane, then clicking *Edit* allows you to edit the information or you can drag and drop a pdf file to associate the full article with the reference
- Clicking on the *Add* button in the upper left will allow you to manually add references, import documents, or import references from other formats (xml, ris, and bib)

To add Mendeley plugin to Microsoft Word or LibreOffice

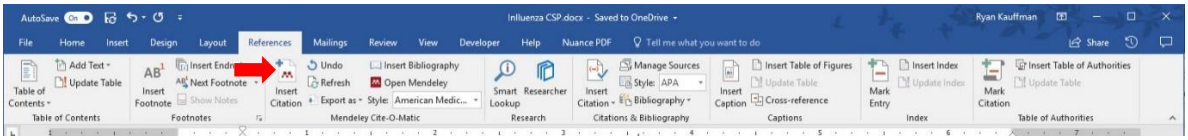
1) Open the desktop application (if not installed, the desktop app can be download from https://www.mendeley.com/download-desktop/

2) Click on the *Tools* menu, then *Install MS Word Plugin* and/or *Install LibreOffice Plugin*

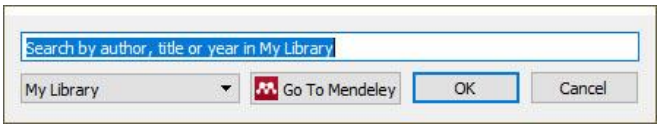
To add References/Bibliography to a Microsoft Word document

You must have the citation manager installed.

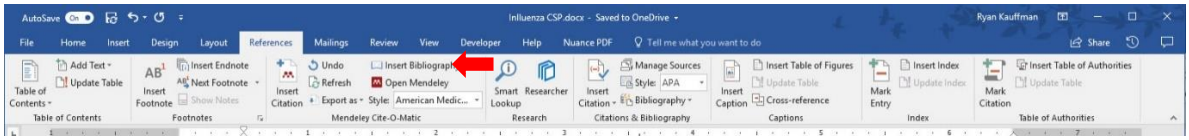
1) Click on the *References* menu item



2) Click on *Insert Citation* button (red arrow)



3) Enter information to select the reference, then click on the reference to add the reference



4) To add a bibliography to your document, move the cursor to the location in the document where you want the bibliography, then click on the *Insert Bibliography* button (red arrow). This only needs to be done once and the bibliography will be updated as other references are added.

Illustrations and Graphics

Because illustrations are an integral part of medical education, The Core Content Review of Family Medicine welcomes and encourages members of the national faculty to provide graphic material that will enhance the educational value of questions and discussions. Acceptable graphics include plain-film x-rays, radionucleotide scans, ultrasonograms, computed tomography (CT) scans, magnetic resonance imaging (MRIs), electrocardiograms, photographs (black and white or color), charts, graphs and tables.

When submitting illustrations or graphics, please keep the following in mind:

1. Realize that family physicians usually do not interpret subtle findings on specialized radiologic studies such as CT scans or MRIs. Therefore, a question should not focus on the participant's diagnosis or interpretation of such graphic material. However, interpretation of plain-film x-rays, electrocardiograms and other pictorial material is within the scope of family medicine practice.

2. Adhere to copyright law. Material protected by copyright of a third party (i.e., a publisher of a textbook, monograph, journal or Web site) cannot be used unless permission is granted by the holder of the copyright. **If you submit a copyrighted graphic, such as a photograph or table, you must obtain permission from the third party to use the graphic in a publication such as The Core Content Review. Please send a copy of that permission with your submitted material. This includes photographs and other material reproduced from Internet sources. As a rule, The Core Content Review does not pay the owner to reproduce copyrighted material. Occasionally, we will make an exception to this rule if the owner of the material is requesting only a nominal fee. We always list the source and give credit to the owner for granting permission to use copyrighted material.** (Below is an example of a brief note requesting permission to reproduce copyrighted material. You may use this to model your permission requests.)

> "I am an author for The Core Content Review of Family Medicine, which is a non-profit organization that provides continuing medical education for health care professionals. I am writing a question and discussion on (topic name). I am writing to request permission to reproduce (example: Table 1 entitled "Conditions Associated with Elevated Tumor Marker Levels" from an article by Dr. Perkins in Am Fam Physician 2003; 68:1075-82.) I feel this material will greatly enhance the educational value of the written material. You will be recognized in the publication with wording of the caption at your discretion. Initially, this material will be used in a print format. Every two years we release previously printed material in both CD and online format. This material will only be provided to subscribers and will be password protected on our website. Thank you for your consideration. Your help is very much appreciated. "

3. Photographs – If you have taken a photograph where the patient could be clearly identified, you must obtain a release for publication signed by the patient or the patient's parent or guardian. If the patient cannot be identified in the photograph, no release is needed. Photographs should be submitted in .jpg. .tif, or .png format.

4. **Other** Graphics – Graphs, charts and tables may be included in the question/discussion material. If they are taken directly from another source, permission (as in 2 above) must be obtained and the correct wording of the credit that must be given. If a graph, chart or table is adapted from another source, that source must be noted under that particular graphic. Graphs, charts and/or tables must be submitted to us in their native file format to ensure the highest quality when reproducing this material.

Hints on illustrations and graphics

1. High-quality digital photographs should be submitted electronically as a file separate from the Word document.

2. High-quality electrocardiographic tracings may be photocopied and sent flat by regular mail or they may be photographed with a digital camera or scanned and sent electronically.

3. Governmental websites such as the Centers for Disease Control and Prevention have numerous charts, graphs, maps and tables that are for public use and do not require special permission. This type of graphic should be saved (downloaded) and submitted in its original format along with the internet address at which the original is located. A credit line must be included to be printed under the graphic item.

Sources of non-copyrighted graphics

Centers for Disease Control and Prevention: http://www.cdc.gov/

Gray's Anatomy: http://www.bartleby.com/107/

National Eye Institute: http://www.nei.nih.gov/photo/

Public Health Image Library: http://phil.cdc.gov/phil/home.asp

World Health Organization: http://www.who.int/en/

Helpful Hints When Submitting Material

1. All submissions should be uploaded to the author site in Microsoft Word format. Please contact our editorial team to receive a template to submit material. It will do the formatting for you!

2. **Do** use a simple heading at the top of each question and associated discussion:

    Question topic (ex., Migraine headache)
    Author name (ex., John Doe, M.D.)
    Date (ex., 12/23/01)

3. **Do** put each individual question and discussion together in the same file (document) and label it with the same heading as in 1. If a series of questions relates to one discussion, they can all be placed in one file.

4. **Do** upload all material to the author website and check the "completed" check box when submitting completed material.

Plagiarism

The Core Content Review is subject to the same ethical and professional standards of authorship as any medical journal. Medical writing requires literature searches, note taking, analysis, interpretation and, finally, synthesis of medical facts, theories, research and clinical studies. The copying or verbatim use of material written by others without acknowledging their ownership is plagiarism and is not acceptable. Of note, even if authorship is acknowledged, please do NOT replicate or "copy and paste" sections out of other articles.

Documenting Your Participation as a National Faculty Member

Writing for The Core Content Review of Family Medicine is a scholarly endeavor. We encourage all of our national faculty members to include The Core Content Review in their curriculum vitae. Writing for The Core Content Review can also be submitted to the American Academy of Family Physicians (AAFP) for up to 30 prescribed continuing medical education hours annually. Published material can be documented as follows:

Smith AB. Medical topic. Core Content Rev Fam Med 35(4):12–13.

Topic Categories

1. Adolescent
2. Allergy – Immunology
3. Blood
4. Circulatory/Vascular
5. Congenital/Genetic
6. Critical Care
7. Diagnostic Testing
8. Digestive
9. Domestic Violence/Abuse
10. Endocrine
11. ENT
12. Ethical/Legal
13. Genitourinary
14. Geriatric Medicine
15. Health Care System
16. Health Maintenance
17. HIV
18. Hospital care
19. Infectious
20. Medications/Drugs
21. Men's Health
22. Metabolic
23. Musculoskeletal
24. Neoplasm/Malignancy
25. Neurologic
26. Nutrition
27. Occupational Medicine
28. Pain Management
29. Pediatric/Neonatal
30. Practice Management/Informatics
31. Pregnancy/Childbirth
32. Psychologic
33. Public Health
34. Quality Improvement
35. Respiratory
36. Rheumatologic
37. Sensory
38. Sexuality
39. Skin
40. Sports Medicine
41. Substance Abuse
42. Surgery
43. Systems-based practice – inpatient
44. Systems-based practice – outpatient
45. Travel Medicine
46. Urgent/Emergency
47. Women's Health

Normal Laboratory Values

The table below provides normal values for the most commonly reported laboratory tests. Other normal values can be found in references sources such as Conn's Current Therapy. The Core Content Review generally uses conventional units rather than SI units (le Système International d'Unites).

HEMATOLOGY TESTS	CONVENTIONAL UNITS
Cell counts	
Erythrocytes	
Males	4.6-6.2 million/mm^3
Females	4.2-5.4 million/mm^3
Children	4.5-5.1 million/mm^3
Leukocytes, total	4,500-11,000/mm^3
Leukocyte differential counts	
Myelocytes	0%
Band neutrophils	3-5%
Segmented neutrophils	54-62%
Lymphocytes	25-33%
Monocytes	
Eosinophils	1-3%3-7%
Basophils	0-1%
Platelets	150,000-400,000/mm^3
Reticulocytes	25,000-75,000/mm^3
Coagulation tests	
Partial thromboplastin time, activated (apt)	20-35 seconds
Prothrombin time (PT)	12-14 seconds
Corpuscular values of erythrocytes	
Mean corpuscular hemoglobin (MCH)	26-34 pg/cell
Mean corpuscular volume (MCV)	80—96 μm^3
Mean corpuscular hemoglobin concentration (MCHC)	32-36 gm/dL
Hematocrit	
Males	40-54 mL/dL
Females	37-47 mL/dL
Children	35-49 mL/dL
Hemoglobin	
Males	13-18 gm/dL
Females	12-16 mg/dL
Children	11.2-16.5 gm/dL
Sedimentation rate (Westergren)	
Males	0-15 mm/h
Females	0-20 mm/h

CLINICAL CHEMISTRY TESTS	CONVENTIONAL UNITS
Alanine amino transferase (ALT) serum (SGPT)	1-45 U/L
Albumin, serum	3.3-5.2 gm/dL
Alkaline phosphatase, serum — Adult	35-150 U/L
Alkaline phosphatase, serum — Adolescent	100-500 U/L
Alkaline phosphatase, serum — Child	100-350 U/L
Amylase	25-125 U/L
Aspartate aminotransferase (AST) serum (SGOT)	1-36 U/L
Bicarbonate (venous plasma)	23-29 mEq/L
Bilirubin, serum — Conjugated	0.1-0.4 mg/dL
Bilirubin, serum — Total	0.3-1.1 mg/dL
Calcium, serum	8.4-10.6 mg/dL
Calcium, ionized serum	4.25-5.25 mg/dL
Carbon dioxide, total, serum or plasma	24-31 mEq/L
Chloride, serum or plasma	96-106 mEq/L
Creatine kinase (CK), serum — Males	55-170 U/L
Creatine kinase (CK), serum — Females	30-135 U/L
Creatinine, serum	0.6-1.2 mg/dL
Ferritin, serum	20-200 ng/mL
Folate, serum	3-18 ng/mL
Follicle- stimulating hormone (FSH), plasma	
Males	4-25 mU/mL
Females, premenopausal	4-30 mU/mL
Females, postmenopausal	40-250 mU/mL
Gamma-glutamyltransferase (GGT), serum5-40 U/L	
Glucose, fasting	<100mg/dL
Haptoglobin, serum	20-165 mg/dL
Iron, serum	75-175 µg/dL
Iron binding capacity, serum —Total	250-410 µg/dL
Iron binding capacity, serum — Saturation	20-55%
Lactate dehydrogenase (LDH), serum	110-220 U/L
Lipase, serum	10-140 U/L
Osmolality	275-295 mOsm/kg water
Phosphate, inorganic, serum — Adult	3.0-4.5 mg/dL
Phosphate, inorganic, serum — Child	4.0-7.0 mg/dL
Potassium, serum	3.5-5.0 mEq/L
Prolactin, serum — Males	1.0-15.0-ng/mL
Prolactin, serum — Females	1.0-20.0 ng/mL
Sodium, serum	135-145 mEq/L
Thyroglobulin	3-42 ng/mL
Thyrotropin (TSH), serum	0.4-4.8 µIU/mL
Thyroxine (FT4), free, serum	0.9-2.1 ng/dL
Thyroxine (T4), serum	4.5-12/0 µg/dL
Transferrin	250-430 mg/dL
Triiodothyronine, (T3), serum	70-190 ng/dL
Triiodothyronine uptake, resin (T3RU)	25-38%
Urate — Males	2.5-8.0 mg/dL
Urate — Females	2.2-7.0 mg/dL
Urea nitrogen, serum or plasma	11-23 mg/dL

The Core Content Review of Family Medicine

Educating Family Physicians Since 1968

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I hereby grant permission for photos to be taken of (me, my son, daughter, wife, husband) by authorized personnel of *The Core Content Review of Family Medicine* for educational use. I grant this permission freely.

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