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# **Learning Sites for Health Professionals**

Kuwait Institute for Medical Specialization  
Kuwait

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## About this Guide...

The developments that had taken place in the field of information and communication technology during the past two decades offer valuable opportunities to the health professionals to undertake Continuing Medical Education (CME) and Continuing Professional Development (CPD). *Learning Sites for Health Professionals*, which presents criteria for choosing CME/CPD sites and a selection of web sites that the practitioner may use in professional development, will be a useful aid to the practitioner for making optimum use of this new resource. This publication is likely to be especially useful in specialties and subspecialties in which only a few CME/CPD activities are being organized locally.

Only a sample of the CME/CPD sites available at present is included in this publication. The text accompanying the web addresses is based on the content published by the authorities hosting the respective sites. The sites are arranged under Medicine, Dentistry, Pharmacy and Nursing except when related web sites are grouped.

It is important to note that the field of online CME/CPD keeps changing at a very rapid pace. Therefore, a compilation of web sites for CME/CPD needs to be revised and updated much more frequently than many other publications available to the health professional.

A number of factors will affect the availability, utilization and the usefulness of CME/CPD sites. Among these are whether the materials are offered free of charge, whether there is adequate interaction between the user and the subject content offered, whether the CME/CPD material is produced by or under the authority of a recognized educational or scientific institution that accredits it for CME/CPD, and whether the programs are offered only to members of specified professional associations.

In our choice of sites for this publication a point that we took into consideration was the CME/CPD authority that was responsible for accrediting the activity and the currency and accuracy of the information that could be expected with such a link. Furthermore, we excluded materials that appeared to be overtly commercially-oriented. This guide, therefore, should be viewed in conjunction with our overall aim—an introduction to CME/CPD sites for

the health professional rather than a comprehensive listing of most of the available CME/CPD sites.

Some of the sites mentioned in this publication enable practitioners to receive CME/CPD credit points awarded by different CME/CPD authorities. If such CME/CPD credit points are included within the credit point totals submitted under the MPC Program, the CME Center would decide on a case-by-case basis whether they could be accepted.

*Learning Sites for Health Professionals* may be downloaded from <[www.kims.org.kw/cme](http://www.kims.org.kw/cme)>, the CME Center web site, in PDF format. Hard copies of the publication are available at the Office of KIMS.

## Criteria to use when selecting and using CME/CPD web sites

### Selecting web sites

- Is the information presented current and accurate?
- Are the materials made available free of charge or only on payment of a fee?
- Is there adequacy of interaction between the user and the subject content offered?
- Are there links to a recognized educational or scientific institution that takes responsibility for the subject content?
- Are the programs accredited by an approved CME/CPD authority?
- Is the material accessible without opportunities being restricted to members of specified professional associations?
- Are the academic and scientific aspects given due emphasis without the program materials being overtly commercially-oriented?

### Using web sites

- Does the subject content, including graphics, get loaded on to the web pages within a short time?
- Can the materials be accessed without the need for going through numerous intermediate steps?
- Does the text have an adequate level of readability in terms of the use of technical terms and jargon and attention to composition and writing style?

- Are the graphics incorporated relevant, and do they enhance the key messages?
- Are color and graphical elements used relevant and effective?

### What you can learn from this Guide...

*Learning Sites for Health Professionals* has been prepared so that the reader will be able to:

1. Search the Internet for effective resources that will promote Continuing Professional Development;
2. Identify, based on the relevance and accuracy of content, easy accessibility, accrediting CME/

CPD authority and other applicable criteria, web sites that contain learning materials which will help in Continuing Professional Development;

3. Utilize the information made available through the sites effectively in undertaking Continuing Professional Development;
4. State the useful terminology that is commonly associated with medical education and online learning, and outline the meanings they signify.

We also expect that the reader using *Learning Sites for Health Professionals* will develop an appreciation that online learning could be an effective supplementary learning resource, and be motivated to use the opportunities available through this medium for own continuing professional development.



### How to claim CME/CPD credits from online learning...

Many of the websites included in *Learning Sites for Health Professionals* allow the user to receive, online or through mail, CME/CPD credits awarded by an approved CME/CPD authority. The credits received will be accepted by local bodies that monitor CME/CPD participation according to their published guidelines.

Health professionals in Kuwait and other GCC countries could claim CME/CPD credits within the framework recommended by the institutions in the respective countries. The guidelines that practitioners in Kuwait need to observe are described in the section that deals with the recognition of CME/CPD credits under the MPC Program of Kuwait. This information is also available at the CME Center web site <[www.kims.org.kw/cme](http://www.kims.org.kw/cme)> in PDF format and as hard copy versions at KIMS. Practitioners in Kuwait

could claim a maximum of 5 credit points within a 24-hour period through web site-based learning. It is essential that any documents submitted to support claims for CME/CPD credits clearly indicate the CME/CPD authority and the number of CME/CPD credits that the practitioner is entitled to claim.

When practitioners claim CME/CPD credits through online learning, it is essential that the:

- Content is from own specialty or from a related subject area that affects own practice;
- Documents submitted to CME Center as evidence of participation show that learning has been undertaken on a continuing basis and at different times spread over the academic year or CME/CPD cycle, and not compressed into a very short period of time.

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## Why this publication...

### (From the First Edition of *Online Learning: A CPD Guide for Health Professionals*)

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Continuing education of physicians and other health professionals is often viewed by many as requiring attendance at formal lectures or seminars. The major developments of information and communication technology that have taken place during the recent past allow many CME opportunities to be presented as online learning instead. This has led to a substantial increase in the number of web sites that offer online CME.

Many physicians as well as other categories of health professionals now use online learning in maintaining their professional competence, especially in the knowledge-based fields. The opportunity for interaction with colleagues may be an added benefit of attending seminars and conferences. Yet the advantages offered by online learning outweigh this apparent drawback. And for the health professional of the present day the lack of ready access to computer facilities, or not being skilled in using the computer are not insurmountable problems that cannot be overcome with a degree of commitment.

Information has been expanding at a rapid pace during the past few decades. This makes it essential that all health professionals acquire the skills of lifelong learning so that they are equipped to keep abreast of the relevant developments. Online learning is an important medium that supplements seminars, conferences and printed materials that the practitioner may rely on for continuing education.

Online learning is one aspect of the wider field of eLearning, which involves the use of new multimedia technologies and the Internet in learning. When the learning needs of the practitioners in the health professions are taken into account, eLearning has an important role to play as it allows a variety of formats such as movie, audio and text to be used in illustrating and enriching the subject content presented. A feature of special value to those in the Gulf Cooperation Council countries and other countries in the region is that eLearning gives easy access to resources available in established institutions abroad and facilitates collaboration with internationally recognized experts. Online learning, therefore, is an avenue that needs to be explored with greater interest than in the past, and *Online Learning: A CPD Guide for Health Professionals* could direct the practitioner to an additional medium.

The CME Center and Medical Education Unit of the Kuwait Institute for Medical Specialization has released a series of publications over the recent past. These include *KIMS Educational Guide*, *CME Program*, *Guidelines to CME Organizers*, *CME in Clinical Practice* (3 Volumes), *MPC Program* (Second Edition of CME Program), *MPC Portfolio* (CME/CPD Diary) and the journal of the institute entitled *Bulletin of the Kuwait Institute for Medical Specialization*. They were issued as hard copy versions as well as in electronic format, and have been distributed in Kuwait, in the GCC region and internationally.

The publication of a range of educational materials, especially in the field of Continuing Professional Development (CPD), is one element of the campaign that KIMS had initiated for implementing CPD for health professionals and for promoting the acceptance of CPD as an essential requirement for effective practice.

*Online Learning: A CPD Guide for Health Professionals* is a publication of the CME Center of KIMS. We hope that it will become a useful addition to the materials that we have already published both as hard copy versions as well as through the electronic media to promote continuing professional development.

We have selected the occasion of the Annual GCC Health Ministers' Meeting for unveiling *Online Learning: A CPD Guide to Health Professionals*. We feel that this is an opportune moment for the release of a publication devoted to CPD as both the health administrators and the practitioners in the countries coming within the GCC are increasingly aware of the importance of CPD, and a number of steps have been taken by the concerned authorities for expanding the opportunities that are available for professional development.

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## **IMPORTANT MESSAGE**

The web sites mentioned in *Learning Sites for Health Professionals* had been reviewed and were accessible at the time of publication.

Readers are advised that they should expect changes in the information provided as online learning is a rapidly developing field in which modifications of links and updates of content are frequent.



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## MEDICINE

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### [www.a3r.org/CMESeries.ASP](http://www.a3r.org/CMESeries.ASP)

The continuing medical education section of the Academy of Anti Aging Research (A3R) web site provides its members the opportunity of obtaining CME credits online.

Each program is divided into 10 sections. Each of these sections can be completed on its own. A set of 50 pdf articles are available, organized into 5 groups of 10 articles each. Some titles are What Is Anti-Aging?, Anti-Aging Hormones, Growth Hormone Factors, Anti-Aging Supplements, Anti-Aging Exercises, Cardiovascular Training and Stress Reduction. The content will be of general interest.

The continuing medical education programs offered at this web site are sponsored and certified through the American Academy of Pain Management, which is accredited by the Accreditation Council of Continuing Medical Education (ACCME) to sponsor medical education for physicians.

### [www.aaaai.org/members/cme\\_ce/](http://www.aaaai.org/members/cme_ce/)

The American Academy of Allergy, Asthma and Immunology Online CME offers a series of slide-audio lectures from the 2004 AAAAI Annual Meeting, AAAAI 60<sup>th</sup> Anniversary Meeting March, 2003, and the 60<sup>th</sup> Anniversary Meeting Postgraduate Plenary Session Web-cast. There are links to Medscape's coverage of AAAAI meetings. The content will be of interest to physicians in the fields of Allergy, Pulmonology and Dermatology.

### [www.aafp.org/cme.xml](http://www.aafp.org/cme.xml)

Online CME is available on the AAFP Web site at [www.aafp.org/cme](http://www.aafp.org/cme). Interactive versions of the quizzes published in AFP and Family Practice Management are available at the site. There are also CME quizzes for recent AFP monographs, interactive versions of the AAFP Home Study audio quizzes and AAFP Home Study monograph quizzes. New interactive cases are also available for online credit.

### [www.aafp.org/afp/index.html](http://www.aafp.org/afp/index.html)

The journal American Family Physician hosts this site which carries a series of articles that deal with clinical issues in Primary Care and quizzes based on the content included.

The answers may be submitted online or using the card in the hard copy of the journal. Special privileges are offered to members of the association.

### [www.aafp.org/afpmonograph.xml](http://www.aafp.org/afpmonograph.xml)

The American Family Physician (AFP) Monographs are presented as text-graphics presentations and are aimed at the Family Practitioner. They deal with caring for the elderly, asthma and allergy, improving care of type 2 diabetes, CAD and stroke, practical advice to help over-weight patients, and management issues in Primary Care.

### [www.aafp.org/videocme.xml](http://www.aafp.org/videocme.xml)

This site under AAFP OnlineVideo CME offers a series of slide-video-lectures, and also a monograph that may be downloaded as a pdf file. The topics covered are cholesterol and cardiovascular disease risk, pathways to controlling hepatitis A & B, aging and health issues, allergic or nonallergic rhinitis, diagnosis and management of childhood ADHD, prevention strategies in family practice, managing pain, urinary incontinence; management of COPD, allergic rhinitis and asthma, early detection of mental illness, and preventing the microvascular complications of diabetes. The content presented is aimed at Family Practitioners.

### [www.aafp.org/x16611.xml](http://www.aafp.org/x16611.xml)

The CME Bulletin offers a series of text-format evidence-based CME programs targeting the Family Practitioner. The topics include B-type Natriuretic peptide in congestive heart failure, metabolic syndrome & associated cardiovascular disease risk, postherpetic neuralgia, cholesterol-lowering therapy, integrating health behavior counseling into routine primary care, importance of childhood, adolescent and adult immunizations, and screening, diagnosis and treatment of breast cancer.

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**[www.aafp.org/x17593.xml](http://www.aafp.org/x17593.xml)**

The 2003 Scientific Assembly Lectures are presented as slide-video lectures at this site.

Lectures are available on Colorectal Cancer, Helping People With Diabetes Help Themselves, Sex After 60, HRT Dilemma, Hyperlipidemia: Evidence for Optimal Treatment, West Nile Virus, SARS and Monkey pox and Sepsis of the Newborn. The slide-video lectures may be viewed online or the slides downloaded to be viewed later.

The target audience for the material is Family Practitioners.

**[www.aafp.org/x22313.xml](http://www.aafp.org/x22313.xml)**

These case-based interactive materials are presented online and will be of benefit to Family Practitioners.

The case studies deal with acetaminophen overdose, respiratory diseases, evaluation and management of dyspepsia, and venous treatment and hypertension.

**[www.aan.com/professionals/patient/quintessentials.cfm](http://www.aan.com/professionals/patient/quintessentials.cfm)**

The materials at this web site hosted by the American Academy of Neurology are presented with physicians in neurology, family practice and internal medicine as the target audience.

The program helps Neurologists and Primary Care clinicians compare their practices to evidence and expert opinion, and enable them to update themselves. The users respond to a survey and study the reading materials provided. Programs on epilepsy and prevention of stroke are available online.

**[www.aao.org/education/](http://www.aao.org/education/)**

The American Academy of Ophthalmology Online Education Center provides these materials aimed at Ophthalmologists. They are available as text and graphics presentations.

Members of The American Academy of Ophthalmology are given access to the content presented.

**[www.aaos.org/courses/welcometoaud.cfm](http://www.aaos.org/courses/welcometoaud.cfm)**

The Learning Center of the American Academy

Orthopedic Surgeons offers these text-and-graphics or case-based-interactive materials. The target audience is Orthopedic Surgeons who are members of AAOS. The topics include Postoperative ACL Rehabilitation, Rotator Cuff Diagnosis and Treatment, Viral and Bacterial Infections in Orthopedic Surgery, Ankle Injuries in Athletes, Diabetic Foot, Operative Treatment of Common Displaced and Unstable Hand Fractures, Management of Open Fractures, Tibial Shaft Fractures, and Treatment of Articular Cartilage Injuries.

**[www.aaos.org/wordhtml/exam2000.htm](http://www.aaos.org/wordhtml/exam2000.htm)**

The Self Assessment Center is another site maintained by the American Academy Orthopedic Surgeons. It has material presented in the form of questions and answers.

Examinations that consist of 100 questions in each are available in orthopedic specialties. The topic areas include Adult Spine/Foot & Ankle/Musculoskeletal Trauma, Shoulder Elbow Anatomy Imaging, Musculoskeletal Tumors, and Adult Reconstruction Hip & Knee/Sports Medicine/Pediatric Orthopedics. An examination dealing with ethics, professional liability, and occupational health is also available.

**[www.aaos.org/oko/login.cfm](http://www.aaos.org/oko/login.cfm)**

The Orthopedic Knowledge Online program offers material in the format of text-and-graphics, targeting orthopedic surgeons. Courses are available on Anterior Cruciate Ligament Tears, Femoral Shaft Fractures, and Revision ACL Reconstruction.

**[www.aapmr.org/cme.htm](http://www.aapmr.org/cme.htm)**

The AAPM&R (American Academy of Physical Medicine and Rehabilitation) EMG and Musculoskeletal Case-of-the-Month Series is a programmed learning series of case studies in electrodiagnosis and musculoskeletal disorders. Instruction is by interactive text and is case-based. The target audience for these lessons is Neurologists.

**[www.acpm.com/order2.cfm](http://www.acpm.com/order2.cfm)**

The Online Edition of ACP Medicine offers evidence and recommendations on diagnosis and treatment. Its chapters cover major subspecialties of internal medicine, women's health, geriatrics, palliative

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medicine, psychology, dermatology and neurology. The instruction format is text and graphics.

**[www.acssurgery.com/order2.cfm](http://www.acssurgery.com/order2.cfm)**

The Online Edition of *ACS Surgery: Principles and Practice* gives the information needed by surgeons to perform core surgical procedures more efficiently and to provide current, cost effective patient care. It covers resuscitation, common presenting problems, trauma and thermal injury, preoperative preparation, operative management, special perioperative problems, care in the ICU, and postoperative management. The instruction format is text and graphics. The target audience for the materials presented is surgeons.

**[www.addictioncme.com/default.htm](http://www.addictioncme.com/default.htm)**

Four courses in Addiction Science are available at this site. They deal with the scope of the problem, opioid addiction, health impact of opioid addiction, pharmacology of opioids, and other treatments for opioid addiction.

Under Best Practice the site offers courses on the themes of the Primary Care Physician's role in addiction treatment, detection and diagnosis of opioid dependence, assessment for office-based treatment, clinical use of buprenorphine, opioid use disorders and psychiatric co-morbidities, opioid addiction in special populations, managing substance abuse patients in clinical practice, and office policy and legal issues.

The content will benefit psychiatrists and is also of general interest. The presentation format is case-based and interactive.

**[www.afip.org](http://www.afip.org)**

This web site contains articles on the legal aspects of medical practice, with credits offered by the Armed Forces Institute of Pathology.

**[www.afip.org/Departments/edu/cme.htm](http://www.afip.org/Departments/edu/cme.htm)**

The Armed Forces Virtual Gastrointestinal Endoscopic Biopsy Course presented at this web site is a text-and-graphics presentation that has Pathologists and Gastroenterologists as the target audience. Each module contained within the course presents a

case history and microscopic slides of an endoscopic biopsy.

**[www.afip.org/Departments/edu/cme.htm](http://www.afip.org/Departments/edu/cme.htm)**

The Armed Forces Institute of Pathology hosts this Online Urologic Pathology web site. Its content is targeted at Pathologists and Urologists. The materials are presented in the format of text-and-graphics.

The sections on bladder pathology and lesions of the penis and urethra will benefit urologists preparing for Board examinations and practicing urologists and pathologists. A text description of the light microscopic view of specific disease processes is followed by images that illustrate the important features.

**[www.ahe.edu/](http://www.ahe.edu/)**

The Academy for Healthcare Education hosts this web site, which offers an online module that will benefit Family Practitioners and physicians in Internal Medicine. The topics include Migraine Headache, and Integrating Lipid Therapy into ACS Critical Pathways. Instruction is disease-based and is interactive.

**[www.alcoholcme.com/default.htm](http://www.alcoholcme.com/default.htm)**

AlcoholCME.com offers the materials at this site. They are in the format of slide-audio lectures, text-only presentations or interactive case presentations. The themes include treating delirium tremens, brief office interventions for risky drinkers, medications used to treat alcohol dependence, problems of alcohol use and screening and interventions for alcohol use problems.

The target audience for the programs is Family Practitioners, Internists and Psychiatrists.

**[www.allergyeducation.org](http://www.allergyeducation.org)**

Courses offered at this site are based on The Allergy Report of the Allergic Disorders Task Force. The topics include Rhinitis, Rhinosinusitis, Conjunctivitis and Recurrent Otitis Media; Foods, Drugs, Insect Stings and Latex; Skin Disorder; Asthma; and General Diagnosis and Management.

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**[www.amdacmedirect.com/amdaprograms/](http://www.amdacmedirect.com/amdaprograms/)**

The materials presented at this site are aimed at physicians who are medical directors in long-term care facilities.

**[www.ama-assn.org/ama/pub/category/7537.html](http://www.ama-assn.org/ama/pub/category/7537.html)**

This web site offers Online CME provided by the American Medical Association. The materials allow the user to earn accredited CME credit online. When the lesson is completed, the user may print a CME certificate. Printed CME monographs and PDF documents are also available from the AMA to serve physicians at all stages of their careers, with a special focus on Primary Care.

**[www.ama-assn.org/ama/pub/category/5008.html](http://www.ama-assn.org/ama/pub/category/5008.html)**

The American Medical Association CME Library has 4 sections under its Online Courses. While some of the content is aimed at physicians in Internal Medicine and Family Medicine, the other topics are of general interest. The presentations take the format of slide-audio lectures or text-and-graphics.

Under AMA Hereditary Cancer Syndromes, two courses are available on identifying and managing hereditary risk for breast and ovarian cancer, and hereditary risk for hereditary non-polyposis colorectal cancer and endometrial cancer.

In the AMA Managing Osteoporosis unit, there are presentations on detection and clinical issues in testing, glucocorticoid induced osteoporosis, update in patient management, and clinical challenges in primary care.

**[www.ama-cmeonline.com/](http://www.ama-cmeonline.com/)**

The AMA Pain Management series that is accessible at this web site provides text-and-graphics materials that deal with the assessment and management of pain. The following topic areas are discussed: pathophysiology of pain, overview of management options, barriers to pain management, pain in patients with substance abuse concerns, pain in older adults, pediatric pain management, persistent non-malignant pain, common persistent pain conditions, neuropathic pain, cancer pain, and end-of-life care.

**<http://cme.amcancersoc.org/>**

This web site offers *A Cancer Journal for Clinicians*, which is a text only presentation.

The content is targeted at Oncologists, and several articles including a CME article are provided at the web site.

**[www.amdacmedirect.com/amdaprograms/](http://www.amdacmedirect.com/amdaprograms/)**

AMDA cmedirect offers these slide-video lectures presented at this web site. They are aimed at physicians who are medical directors in long-term care facilities. The topics dealt with are immunization in long term care, pain management, handling VRE and MRSA in long term care, and urinary incontinence in long term care.

The target audience for the programs is Family Practitioners, Internists and Geriatricians.

**[www.amwa-doc.org/dvcourse.htm](http://www.amwa-doc.org/dvcourse.htm)**

This course is based on the manuals of the Family Violence Prevention Fund. It is mostly text with some graphics. There are also optional audio or video clips of victims of domestic violence. Each section is followed by a quiz based on the subject content that was offered.

**[www.anesoft.com/](http://www.anesoft.com/)**

Anesoft Medical Simulation Software accessible at this web site provides case-based-interactive presentations. The content is targeted at physicians in Anesthesiology, Cardiology and Critical Care. The courses are on the topics of ACLS, Anesthesia, Bioterrorism, Critical Care, Hemodynamics, and Sedation.

**[www.anesthesiologyonline.com/](http://www.anesthesiologyonline.com/)**

AnesthesiologyOnline.com provides full-text, original, peer-reviewed articles discussing the various aspects, latest information, and innovations in the specialty of anesthesiology. Each article is designated for AMA PRA category 1 credits for physicians.

A series of monthly CME/CE modules, each consisting of 10 abstracted, peer-reviewed articles covering the wide spectrum of anesthesiology topics is

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offered. Each module is designated for AMA PRA credit for physicians.

Multimedia programs, encompassing audio slide lecture programs, focus on current topics in the specialty of anesthesiology.

**[www.arcmesa.org/](http://www.arcmesa.org/)**

ArcMesa Educators is a continuing education provider for physicians, physician assistants, dentists, dental hygienists, nurses, pharmacists, dietitians, diabetes educators, and radiology technologists.

The web site delivers continuing education courses online. Online testing with immediate grading and certification is available. The site also provides live online programs in which the content dealt with could be archived for later review. The materials may be read online or downloaded as PDF files for use later.

**[www.arhp.org/healthcareproviders/cme/](http://www.arhp.org/healthcareproviders/cme/)**

The Association of Reproductive Health Professionals (ARHP) is a membership association that offers online Continuing Medical Education (CME) credits and Continuing Education (CE) units. The site enables users to achieve the learning objectives in specified content areas in reproductive health and gain CME credit. ARHP is accredited by the Accreditation Council on Continuing Education (ACCME) to sponsor continuing medical education (CME) for physicians.

**[www.arhp.org/healthcareproviders/cme/onlinecme/cmeclinicalproceedings.cfm?ID=36](http://www.arhp.org/healthcareproviders/cme/onlinecme/cmeclinicalproceedings.cfm?ID=36)**

The text-only presentations at this web site are targeted at physicians in Family Practice, Internal Medicine, and Obstetrics & Gynecology. Some of the topics discussed are: menopause care, periodic well-woman visit, advances in cervical cancer prevention, and the role of extended contraception.

**[www.ascp.org/press/self\\_competency/ce-instructions.asp](http://www.ascp.org/press/self_competency/ce-instructions.asp)**

American Society for Clinical Pathology (ASCP) hosts this web site with the content targeted at Pathologists. The text-only exercises deal with the subject areas of Body Fluids, Chemistry, Cytology, Forensic Pathology, Hematology, Histology, HIV

Education, Management, Microbiology, Molecular Diagnostics, Surgical Pathology, and Transfusion Medicine.

**[www.asimcme.com](http://www.asimcme.com)**

Advanced Studies in Medicine of Johns Hopkins University provides health care professionals with modern knowledge and skills based on research and patient care to improve the quality of patient management. The continuing medical education programs include medical meeting symposia, enduring media and teleconferences. CME Programs are offered in the specialties and subspecialties of Addiction Medicine, Adolescent Medicine/Pediatrics, Cardiology, Critical Care/Emergency Medicine, Endocrinology/Diabetes, Gastroenterology, Infectious Diseases, Interventional Cardiology/Electrophysiology, Managed Care, Nephrology, Neurology, Oncology/Hematology, Ophthalmology, Pain Management, Psychiatry, Pulmonary Medicine, Surgery, Urology, and Women's Health.

**[www.ascp.org/press/self\\_competency/ce-instructions.asp](http://www.ascp.org/press/self_competency/ce-instructions.asp)**

The American Society for Colposcopy and Cervical Pathology (ASCCP) Online CME Program offers slide-audio format lectures at this web site. The subject content will benefit Gynecologists.

The lectures present cytologic, colposcopic, and histologic images related to HPV and cervical cancer prevention. The topics discussed are: the natural history and epidemiology of HPV, immune response to HPV, follow-up after an abnormal Pap, understanding cultural and psychosocial barriers to Pap testing, the ASCCP Guidelines for Managing ASC, and colposcopy of high grade lesions.

**[www.audio-digest.org/](http://www.audio-digest.org/)**

Audio-Digest Online CME presents a series of lessons in audio-text format. Practitioners in a range of specialties will find the content useful. These presentations follow the format of objectives, pretest, written summary and the audio presentation. The courses available include programs in Anesthesiology, Emergency Medicine, Family Practice, Gastroenterology, General Surgery, Internal Medicine, Obstetrics & Gynecology, Otolaryngology, and Pediatrics.

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**[www.auntminnie.com/](http://www.auntminnie.com/)**

The Aunt Minnie Online CME web site offers case-based-interactive sessions for the benefit of Radiologists.

The use of various radiological modalities (CT, PET, MR, Isotopes) to diagnose patients is presented. The courses aim to integrate knowledge and imagery to enhance learning. Mechanisms are available for assessment.

**[www.baylorcme.org/](http://www.baylorcme.org/)**

Baylor College of Medicine (BCM) promotes lifelong learning by providing educational experiences for physicians and other health professionals that enhance and expand medical knowledge and skills to improve health care services.

The Office of Continuing Medical Education oversees all CME activities at BCM. The OCME identifies factors that affect the practice of medicine such as new technologies, devices, therapeutic drugs, and other scientific advances in medicine, practice guidelines, changing health policies and regulations, and changing health care delivery systems. The CME programs are designed to keep pace with advances in medicine, technology and biomedical research, and changes in the health care environment.

**[www.baylorcme.org/specialty.cfm?menu\\_id=24](http://www.baylorcme.org/specialty.cfm?menu_id=24)**

The Baylor Pediatrics web site deals with topics of interest to physicians in Pediatrics, Family Medicine and Internal Medicine. The subject content is presented in slide-video lecture format.

The presentations deal with renal disease, infectious disease and bioterrorism, gastrointestinal disease, respiratory disease, assent and confidentiality, the critically ill or injured child, evaluation of the child with the first seizure, and the adolescent interview.

**[www.baylorcme.org/specialty.cfm?menu\\_id=29](http://www.baylorcme.org/specialty.cfm?menu_id=29)**

The Baylor Neurology web site offers practical guidelines on the evaluation, diagnosis and treatment of essential tremor. The content is presented in text-only format, and will be of interest to Neurologists.

**[www.baylorcme.org/specialty.cfm?menu\\_id=37](http://www.baylorcme.org/specialty.cfm?menu_id=37)**

The Baylor Women's Health web site offers a set of lectures in slide-audio lecture format.

The target audience for the presentations is physicians in Family Medicine, Internal Medicine and Gynecology. The programs deal with the following topics: IUDs and Special Populations, Coronary Heart Disease Risk in Women's Health Initiative, Avoiding Osteoporotic Fractures, Diagnosis and Management of HPV, Clinical and Biological Aspects of HPV Infection, Bacterial Vaginosis, and Breast Cancer Genetic Screening.

**[www.baylorcme.org/specialty.cfm?menu\\_id=38](http://www.baylorcme.org/specialty.cfm?menu_id=38)**

The Baylor Cardiovascular Disease web site offers a series of courses for the benefit of physicians in Family Medicine, Internal Medicine and Cardiology. Instruction is in the format of slide-video lectures. Lipid abnormalities and diabetes in heart diseases are two topic areas that have been given special attention.

**[www.baylorcme.org/specialty.cfm?menu\\_id=39](http://www.baylorcme.org/specialty.cfm?menu_id=39)**

The Baylor Diabetes web site provides slide-video lectures dealing with the management of lipid abnormalities and the effects of diabetes in heart disease. Courses available are titled New Strategies for New Targets (Statins), Implications of Recent Clinical Trials for NCEP ATP III Guidelines, When Oral Therapies Fail, The International Verapamil-Trandolapril Study (INVEST), Update on the Metabolic Syndrome, and Glycemic Control Slows Rates of Carotid Artery Disease Progression. The content is aimed at physicians Family Medicine and Internal Medicine.

**[www.baylorcme.org/specialty.cfm?menu\\_id=41](http://www.baylorcme.org/specialty.cfm?menu_id=41)**

At this web site titled Baylor Analgesic Therapy, educational materials are offered that will benefit physicians in Family Medicine, Internal Medicine and Anesthesiology. A program on Botulinum toxin therapy in pain management is available in the format of slide-audio lectures.

**[www.baylorcme.org/specialty.cfm?menu\\_id=42](http://www.baylorcme.org/specialty.cfm?menu_id=42)**

This web site, Baylor Gastroenterology, offers a

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course in pediatric gastrointestinal disease. The topic areas presented are newer treatments for inflammatory bowel disease, childhood obesity, and update on liver transplantation. The content will be of benefit to physicians in Gastroenterology, Pediatrics and Surgery.

**[www.baylorcme.org/specialty.cfm?menu\\_id=45](http://www.baylorcme.org/specialty.cfm?menu_id=45)**

The Baylor Oncology web site offers this course aimed at Oncologists. It is presented in slide-video lecture format and discusses the topics of advances in prognostic tools for bladder cancer, risk assessment and prostate cancer, and breast cancer genetic screening.

**[www.baylorcme.org/specialty.cfm?menu\\_id=56](http://www.baylorcme.org/specialty.cfm?menu_id=56)**

This web site, Baylor Medical Ethics, offers a set of presentations of general interest dealing with medical ethics. Issues in pediatrics and breast cancer form the basis of the sessions.

**[www.baylorcme.org/specialty.cfm?menu\\_id=68](http://www.baylorcme.org/specialty.cfm?menu_id=68)**

The Baylor Hypertension web site offers six courses on the different aspects of hypertension. These slide-video lectures are aimed at physicians in Family Medicine, Internal Medicine and Cardiology.

**[www.bcny.com/index.jsp](http://www.bcny.com/index.jsp)**

BCN-NY is a web site that aims to provide physicians with training in the management of biological, chemical and nuclear emergencies. The content is presented in the format of *PowerPoint* presentations, and would be of interest to a general audience. The topics covered include biological agents [Anthrax, Botulism, Brucellosis, Glanders, Melioidosis, Plague, Q Fever, Smallpox, Staphylococcus Enterotoxin B (SEB), Tularemia, and Viral Hemorrhagic Fevers (VHF)], chemical agents (Ricin, Sarin and VX Nerve Gases) and nuclear/radiological agents.

**[www.bioterrorism.uab.edu/](http://www.bioterrorism.uab.edu/)**

This web site, Bioterrorism and Emerging Infections Site (AHRQ), presents case-based-interactive sessions on the biological agents anthrax, smallpox, tularemia, botulism, plague, and viral hemorrhagic fevers. West Nile virus, severe acute respiratory syndrome (SARS), and monkey pox are additional

conditions dealt with. The content will be of interest to physicians in many specialties, such as Emergency Medicine, Internal Medicine, Family Medicine, Pediatrics, Radiology, Pathology, and Infectious Diseases.

**[www.breastfeedingbasics.org/](http://www.breastfeedingbasics.org/)**

This web site will be of benefit to physicians who advise women on breastfeeding. The content presented deals with advantages, breast-feeding statistics and barriers to breastfeeding.

**[www.bu.edu/cme/activities/edactivities.html](http://www.bu.edu/cme/activities/edactivities.html)**

The Boston University School of Medicine offers these CME courses for the benefit of physicians in Internal Medicine, Family Medicine, Pediatrics, Obstetrics & Gynecology, and Dermatology. The sessions are presented in text-graphics format.

The courses in Dermatology deal with Anatomy and examination of the skin, cutaneous laser, cutaneous indications for HIV testing, dangerous drug eruptions, dermatosis in pigmented skin, herpes virus infections, recognizing skin cancer, superficial fungal infections, and warts. In the field of Pediatrics there are presentations on pneumococcal disease and vaccines. Additional courses are available in Cardiology and Internal Medicine.

**[www.bumc.bu.edu](http://www.bumc.bu.edu)**

The Department of Continuing Medical Education at Boston University offers a selection of courses, developed by Boston University School of Medicine Faculty. While some of the content is available online, others are journal-based. AMA Physician's Recognition Award Category 1 Credits can be obtained by completing and passing examinations based on the enduring materials provided.

**[www.cancereducation.com/cancersyspagesnb/a/mmrf/mm0206/index.cfm?rid=26](http://www.cancereducation.com/cancersyspagesnb/a/mmrf/mm0206/index.cfm?rid=26)**

CancerEducation.com is a web site that offers case-based-interactive presentations targeting Hematologists and Oncologists. A range of courses is available. Some of the topics dealt with are Stem Cell Transplant, Management of Toxicities Associated with Bortezomib, Immunomodulatory Drug Therapy for Relapsed Myeloma Patients, and a number of

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others that deal with the different aspects of the diagnosis and management of the Myeloma patient.

**<http://cancernetwork.com/>**

This web site, CancerNetwork.com, offers text-only presentations aimed at Oncologists.

The CME activities available are based on reports of meetings, oncology journal articles, and journal supplements.

**[www.cancernetwork.com/](http://www.cancernetwork.com/)**

A series of courses based on articles on breast, ovarian, head and neck, urothelial, prostate, testicular, gastric, Hodgkin's, cervical, endometrial, esophageal, pancreatic and thyroid cancers is provided at this web site.

**[www.cancer.org](http://www.cancer.org)**

A number of articles dealing with various aspects of cancer is accessible at this web site. CME credit may be claimed on the articles offered. The topic areas include hematologic malignancies, comorbidity considerations in geriatric oncology, multiple myeloma, prevention, diagnosis and therapeutics of cervical cancer, external beam radiation therapy for prostate cancer, lymphedema, and current issues in research and management.

**[www.cardiaccases.com/](http://www.cardiaccases.com/)**

The Cardiac Cases under this web site are case-based-interactive, and are targeted at physicians in Family Medicine, Internal Medicine, and Cardiology.

The courses offered deal with the evaluation, diagnosis, and treatment of heart disease. There are cases in the topic areas of diabetes and chronic progressive hypertension, recent myocardial infarction, and progressive coronary artery disease diagnosed recently.

**[www.cardiosource.com/](http://www.cardiosource.com/)**

The American College of Cardiology offers its Self-Study Modules at this site. These programs would meet many of the educational needs of cardiologists. The text and slide-audio presentations from the ACC-04 Scientific Sessions include those titled

Acute Coronary Syndromes Subspecialties, Lipids Subspecialties, Acute Coronary Syndromes Audio Discussions, Lipids Subspecialties Audio Discussions, Late Breaking Clinical Trials, and Hypertension: Implications of New Trials, and European Guidelines for Clinical Practice.

The *Adult Clinical Cardiology Self-Assessment Program* offers a series of peer-reviewed self-assessment questions and answers.

The *Catheterization and Interventional Cardiology Self-Assessment Program* covers basic concepts in cardiac catheterization, clinical applications in coronary artery disease, and clinical applications in non-coronary heart disease.

The *Electrocardiography Self-Assessment Program* covers the topics of single ECG tracing interpretations, overreading of computer ECG interpretations, electrocardiographic clinical correlations, interpretation of serial ECG tracings and stress test interpretations.

The other content presented includes images of cardiac pathology, echocardiographic images, basic cardiac electrophysiology and recent developments, prevention and management of coronary heart disease through lipids.

**[www.cardiovillage.com/](http://www.cardiovillage.com/)**

The web site CardioVillage offers case-based-interactive slide-only programs. The content will be of benefit to Cardiologists and other physicians who practice cardiovascular medicine.

The presentations, which use graphics, animation and diagnostic images, are on the topic areas of coronary artery disease, echocardiography, nuclear cardiology and preventive cardiology. The lessons are accompanied by tutorials, cases, and self-assessment exercises. The programs include materials specially designed for medical students as well.

**[www.carescience.com](http://www.carescience.com)**

[www.carescience.com](http://www.carescience.com) gives access to a free benchmark database of Medicare morbidity and mortality statistics. The database, called CaduCIS, was licensed by the University of Pennsylvania. It

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can be used to compare severity-adjusted clinical and administrative data regarding lengths of stay, complications and many other factors, analyzing outcomes by diagnosis or procedure.

**[www.cdc.gov/](http://www.cdc.gov/)**

The Centers for Disease Control and Prevention (CDC), the lead federal agency in the USA for protecting the health and safety of people, provides information to enhance health decisions, and promotes health through partnerships. CDC serves as the national focus for developing and applying disease prevention and control, environmental health, and health promotion and education activities designed to improve the health of the people of the United States. Its Continuing Education courses under the MMWR Continuing Medical Education Program have been integrated into a new format.

**[www.cdc.gov/ncidod/diseases/hepatitis/c\\_training/edu/default.htm](http://www.cdc.gov/ncidod/diseases/hepatitis/c_training/edu/default.htm)**

Hepatitis C Training is a web site hosted by the Centers for Disease Control (CDC) that provides information of value to clinicians practicing in the areas of Family Practice, Internal Medicine, Pediatrics and Infectious Diseases. The instructional approach in presentations is text-and-graphics and case-based-interaction formats. The CDC recommendations on the prevention and the control of HCV infection and HCV-related chronic disease are discussed.

**[www.cdc.gov/hemochromatosis/training/index.htm](http://www.cdc.gov/hemochromatosis/training/index.htm)**

Hemochromatosis for Health Care Professionals is a web site hosted by the Centers for Disease Control that discusses the early detection and early intervention of adult onset hemochromatosis. The presentations are in text-and-graphics and case-based-interactive formats. The educational material is designed with physicians practicing in Family Medicine and Internal Medicine as the target audiences. Eight modules are offered under this course. They deal with the signs and symptoms, recommended procedures for diagnosis, initial treatment, and the importance of family-based detection.

**[www.cemedicus.com/](http://www.cemedicus.com/)**

The CE Medicus Service provides a variety of online CME courses on a wide range of topics that will benefit physicians from a number of different medical specialties.

The CE Medicus web site offers the user a personal account, which allows access to complete activities and for searching for relevant content and maintaining records of continuing education credits.

**[www.cene.com/](http://www.cene.com/)**

CENE (Council for Excellence in Neuroscience Education) is an organization of clinicians in neurosciences, formed to develop a comprehensive, interactive and multidimensional continuing education program on various topics in the field of neuroscience for Psychiatrists, Neurologists, and long-term care specialists.

The CME programs offered include topics in bipolar disorder, epilepsy, migraine, and behavioral disturbances associated with dementia. A range of materials is available in the form of slide library, monographs, newsletters and webcasts.

**[www.cervicalhealthonline.org/](http://www.cervicalhealthonline.org/)**

Case-based-interactive courses are available at this web site. The format of presentation is slide-only.

The content is designed with practitioners in Obstetrics & Gynecology, Family Practice, and Internal Medicine as the target audience. The topics dealt with are cervical pathology and screening technology for detection of cervical cancer precursors.

**[www.chall.com/](http://www.chall.com/)**

Med-Challenger OBGYN is a web site that provides a comprehensive review for Obstetricians and Gynecologists. A large variety of topic overviews written by reputed authorities is available. Some of the sessions are presented in Question and Answer format.

The site also gives access to knowledge and information that physicians need for managing the common disorders, diseases, and injuries that can be avoided through preventive medical practices. In addition, the site provides CME accredited review courses in Preventive Medicine, Family Medicine,

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Infectious Diseases, Sports Medicine, Emergency Medicine, Internal Medicine, Dermatology, Pediatrics, Cardiology and Obstetrics & Gynecology.

**[www.chall.com/products.htm](http://www.chall.com/products.htm)**

The Challenger web site offers case-based-interactive and question-and-answer format CME learning material. The subject content will be of interest to physicians in Family Practice, Internal Medicine, Pediatrics, Obstetrics & Gynecology, Cardiology and Emergency Medicine.

Review courses are available for physicians in Family Medicine, Emergency Medicine, Internal Medicine, Pediatrics, and Obstetrics & Gynecology. The site also provides access to standard textbooks with questions and answers, quizzes and videos.

**[www.chse.louisville.edu](http://www.chse.louisville.edu)**

The University of Louisville Continuing Health Sciences Education provides life long learning to health care professionals in the disciplines of medicine, dentistry, nursing and public health. These Continuing Health Sciences Education activities are available to international audiences in addition to other groups of health professionals.

The offerings will be multidisciplinary in nature, and include symposia, lectures, hands-on workshops, use of enduring materials such as web-based activities, journals, monographs, self-study videotapes, etc. Activities and services will be based upon the expressed needs of the health care professional.

**[www.chestnet.org/](http://www.chestnet.org/)**

The American College of Chest Physicians (ACCP) hosts these programs in a number of topic areas. Several different types of online education opportunities for medical professionals are available at this web site. These lessons range from simple tests based upon an article to interactive classes. The content will be of interest to physicians in Pulmonology, Critical Care, and Internal Medicine.

Lectures are available on the causes and treatments of asthma. The other presentations are titled Sepsis, and Recognizing and Treating Ventilator-Associated Pneumonia in the ICU. An online journal for the pulmonary and critical care specialist is provided.

**[www.chronocme.com/](http://www.chronocme.com/)**

A course on chronotherapy in the treatment of hypertension is available at this web site.

**[www.cicatelli.org/DistanceLearning/main.htm](http://www.cicatelli.org/DistanceLearning/main.htm)**

The web site of Cicatelli Associates Distance Learning provides content that will be of interest to physicians in Family Medicine, Internal Medicine and Obstetrics & Gynecology. The material is presented as text-only format and video. Courses are offered in the topic areas of Chlamydia, vulnerable populations and perinatal care, and responding to trauma in primary care.

**[www.clevelandclinicmeded.com](http://www.clevelandclinicmeded.com)**

This web site of the Center for Continuing Education at Cleveland Center presents a variety of learning opportunities, including online CME, a calendar of all upcoming live CME courses, and a collection of medical publications.

The web site provides medical information to health care professionals, free CME opportunities online, and information about live CME offerings. A large number of online CME activities is now available. Logging-in to access the content is readily available.

Online CME is offered in the specialties of Cardiovascular Diseases, Emergency Medicine, Endocrinology, Gastroenterology, Hematology, Infectious Diseases, Nephrology, Neurology, Psychiatry, Women's Health, and general topics. In addition, CME activities are also provided based on selected articles from the *Cleveland Clinic Journal of Medicine*.

Some of the other programs available under this web site are GI Masters Program, Online Case Study Series and Disease Management Project Clinical Decisions Cases.

**[www.cme.alphamedpress.org/](http://www.cme.alphamedpress.org/)**

A set of courses on hematology and oncology topics areas is available at this web site.

**[www.cme.cybersessions.org/](http://www.cme.cybersessions.org/)**

The content at this web site is aimed at Ophthalmologists and Cardiologists, and deals with the latest developments in ophthalmology and cardiology.

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**[www.cmecorner.com](http://www.cmecorner.com)**

This web site offers courses in the following topic areas: Management of Depression and Anxiety, Hypertension, Control of GERD, Hormone Replacement Therapy, Dyslipdemic patient, Postmenopausal Health, Prevention of Osteoporosis, and Management of Respiratory Diseases.

**[www.cme-webcredits.org/](http://www.cme-webcredits.org/)**

This web site provides two types of courses on diabetes and various aspects of its management. The content will be of benefit to practitioners in Family Practice, Internal Medicine, and Endocrinology.

**[www.cme-reviews.com/](http://www.cme-reviews.com/)**

CME/CPD material on psychiatric and neurological disorders are available from this web site.

**[www.cme.diabetes.cmeondiabetes.com](http://www.cme.diabetes.cmeondiabetes.com)**

CMEonDiabetes gives health care providers who treat diabetes patients access to current information and presentations on diabetes and its treatment. Experts in the specialty give online CME conferences (slides with voice over) on diabetes.

**[www.cme.med.umich.edu](http://www.cme.med.umich.edu)**

The Office of Continuing Medical Education (OCME) oversees and produces the University of Michigan Medical School's CME activities for physicians and other health care professionals. CME activities are jointly developed with the clinical departments of the Medical School. OCME provides a full range of services for planning and producing CME activities in live meeting and self-study formats.

OCME is a unit of the Department of Medical Education that brings together the Medical School's resources and expertise in educational research, development, and delivery for medical students, residents, and practicing physicians.

**<http://cme-usa.org/>**

The web site presents content that would be of interest to physicians in ENT and Family Practice. Courses on ENT examination, presented in the format of videos, are available.

**[www.cme.emedicine.com/](http://www.cme.emedicine.com/)**

eMedicine Health Education Center offers articles that are aimed at helping the health care professional to:

- Understand the clinical background;
- Recognize the clinical presentation;
- State the differential diagnosis;
- State the work-up and evaluation of a disease including diagnostic tests;
- State the current therapy, such as new drugs and surgical interventions;
- Identify potential complications of a disease;
- Discuss the current data regarding inpatient and outpatient care;
- Understand the ethical, legal, and practice implications of a topic.

Education accreditation is provided by the University of Nebraska Medical Center.

The eMedicine CME is a web site that provides text-and-graphics format educational material in the form of articles. The content will be of interest to physicians in many different specialties in medicine. Each article deals with a single disease and the reader has the option to answer questions in a specialty or a subspecialty and receive CME credit.

**[www.cme.ouhsc.edu](http://www.cme.ouhsc.edu)**

The materials made available at this site are aimed at Pediatricians. There is special emphasis on infectious diseases in children. There is also a course on medical ethics.

**[www.cme.ucdavis.edu](http://www.cme.ucdavis.edu)**

Continuing Medical Education at the University of California Davis Health System offers physicians and other health care professionals a variety of continuing medical education courses to meet their continuing education needs. It uses interactive remote video conferencing and CME courses on the Internet.

Training is offered in many specialties and subspecialties, with emphasis on multidisciplinary programs and topics. The presentations are designed to reinforce medical knowledge, impart updated information on clinical practice and health care delivery, and introduce new ideas, skills and technology.

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**[www.cme.tulane.edu](http://www.cme.tulane.edu)**

This site maintained by the Tulane University Health Sciences Center offers *CME by Video* under *CME Learning Options*, in addition to *Grand Rounds* and *Customized CME*.

The content presented is aimed at meeting the learning needs of a wide range of medical practitioners.

**[www.cme.uwisc.org/](http://www.cme.uwisc.org/)**

The Office of Continuing Medical Education (CME) of the University of Wisconsin-Madison offers a full range of educational experiences that enhance the practitioner's knowledge base, provide updates and review, and expand professional skills. CME tailors its material to complement the participant's needs and schedule through Conferences, Home Study, Online Courses, Physician Assessment and Individualized CME, Physician Initiated CME (PICME), Regularly Scheduled Conferences (RSCs) etc.

The web site features a CME tracker to automatically keep track of the online courses taken, quizzes that are automatically graded and credit letters that can be printed immediately after successful completion.

**[www.cmecenter.com](http://www.cmecenter.com)**

A set of courses in diabetes, mental health and women's health is available at this web site.

**[www.cmejama-archives.ama-assn.org/](http://www.cmejama-archives.ama-assn.org/)**

JAMA & Archives CME enables physicians to obtain category 1 CME credit by reading peer-reviewed, timely, and clinically relevant articles and completing an online quiz highlighting the article's important points.

There is a facility for keeping track of credits earned and printing of CME certificates.

Physicians who are paid individual subscribers to JAMA or one of the Archives Journals may participate in that journal's CME program as part of their subscription.

**[www.cmelist.com/list.htm](http://www.cmelist.com/list.htm)**

This is the Online Continuing Medical Education (CME) website provided by Bernard Sklar. The site

has links to an extensive list of Online CME web sites.

The user can find online CME web sites arranged by their:

Dominant medical specialty or medical topic, or  
Alphabetically by the first letter of the web site name.

The web sites can be searched also by scrolling the list until a course or site of interest is found.

**<http://cmeonline.med.harvard.edu/>**

Harvard Medical School Online CME offers case-based-interactive CME courses at this web site. The content is aimed primarily at physicians in Emergency Medicine, but will be of interest to physicians in Internal Medicine, and Family Practice. The topic areas for the materials presented include Nuclear, Biological, & Chemical Weapons, Toxicology, Clinical Challenges in Electrocardiography, Sudden Cardiac Death, Presentations of the Red Eye, Endocrine Emergencies, Endoscopic and Ultrasound.

**[www.cmeprograms.umn.edu/bestpractice/](http://www.cmeprograms.umn.edu/bestpractice/)**

Best Practice CME is a site devoted to CME Online developed by University of Minnesota.

All activities have a clinical focus, deal with current data, and provide interactive cases, summaries of key references and links to key resources.

**[www.cmeweb.com/](http://www.cmeweb.com/)**

Thomson American Health Consultants (AHC) produces a large number of publications serving health care professionals in the fields of clinical medicine, health care management, and biotechnology and medical devices. They also provide continuing education and continuing medical education activities, in print and online formats. Additionally, AHC offers many electronic publications online and as CD-ROM products.

Thomson American Health Consultants is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians, and the activities are planned in accordance with the ACCME Essentials. In addition, some activities have been approved by the American Academy of Family Physicians as

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having educational content that is acceptable for obtaining CME credit hours.

**[www.cine-med.com](http://www.cine-med.com)**

This site offers a presentation that is devoted to the "Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma" developed by the National Asthma Education and Prevention Program (NAEPP).

**<http://cpcc.cme-today.com/>**

This web site offers CME material on the topics of incidence and management of anemia, diagnosing and management of ventilator-associated pneumonia, and imaging diagnosis of deep vein thrombosis.

**[www.conference-cast.com/INOVA/](http://www.conference-cast.com/INOVA/)**

This web site, Inova - Advancing Health Care in the New Millennium, presents slide-audio-lecture format educational material targeting physicians in Family Medicine and Internal Medicine. The courses offered are: Operation Stroke, Seventh Annual Advances in Pulmonary Medicine, Diabetes: Traveling the Road to Success, and Colorectal Cancer - Advances in Management.

**[www.conferencecapture.com/cc/aan/](http://www.conferencecapture.com/cc/aan/)**

The site gives the plenary sessions of the American Academy of Neurology 5<sup>th</sup> Annual Meeting (May 2001) and the Therapy Sessions. The topic areas dealt with are stroke, multiple sclerosis and Parkinson's disease.

**[www.conferencecapture.com/cc/aan\\_archive/sessions.php](http://www.conferencecapture.com/cc/aan_archive/sessions.php)**

The American Academy of Neurology Annual Meeting Webcasts are presented here as slide-audio-lectures. The content is aimed at neurologists.

The webcasts from many past meetings are available. The sessions include those titled Contemporary Clinical Issues, Frontiers in Clinical Neuroscience, Epilepsy Therapy, Headache Therapy, Alzheimer's Disease Therapy, and Introduction to Neurourology.

**[www.consultantlive.com/](http://www.consultantlive.com/)**

ConsultantLive.com from *Consultant* magazine provides a collection of images, quizzes and symposia under *Photo Essay*, *What is your diagnosis?*, *Photoclinic* and *Clinical symposia*. Users may claim Category 1 CME credit based on some of the units offered.

**<http://cpsc.acponline.org/>**

The American College of Physicians Clinical Problem-Solving Cases are presented as case-based-interactive sessions at this web site. The target audience is physicians practicing in Internal Medicine.

When interacting with the material, the user goes through a series of steps that include assessing the patient's condition, forming differential diagnoses, making treatment decisions, ordering tests and following patients through the resolution of their problems. The program provides the facility for comparing the user's clinical decisions with those of experts. Cases provided for demonstrating the technique used help the user to become familiar with the format.

**[www.cybermedicalcollege.com](http://www.cybermedicalcollege.com)**

Cyber Medical College is designed and maintained by The Royal College of Physicians and Surgeons, Glasgow. It links practitioners to techniques, clinical guidelines and updates, reference materials etc.

The site also serves as a portal to societies or groups that might support health professions practitioners in their working practice. Links are organized into 'logical subcategories'.

Content is under the control of expert practitioners, designated Editors, who take responsibility for specific categories. Each Editor is asked to consider how they might best structure their area into subcategories to help organize the learning 'assets'.

**[www.cyberounds.com/](http://www.cyberounds.com/)**

Cyberounds provides interactive grand rounds moderated by academics, exclusively for physicians, medical students and other selected health professionals. Every month, the conference moderators post new presentations. The users then have the

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opportunity to pose questions and comments directly to the moderators. Previous conferences are archived and available for review. Cyberounds conferences are available in many major specialties in medicine.

**[www.cyberounds.com/games/cc/](http://www.cyberounds.com/games/cc/)**

The Cardio Country Club appearing at this site is a case-based-interactive program that will benefit physicians in Family Medicine, Internal Medicine, Emergency Medicine, and Cardiology.

The management of hypertension and arrhythmias and the treatment and management of hyperlipidemia are discussed in the programs. The content is structured to suit different levels of competency in Cardiology.

**<http://de-clot.com/>**

This web site offers a series of modules in slide-and-text format about a number of disease states. The content is chosen to cover many different medical specialties.

**[www.depression-anxiety.com/](http://www.depression-anxiety.com/)**

This web site hosted by the American Association for Geriatric Psychiatry (AAGP) presents slide-video format educational material that will benefit physicians in Psychiatry, Family Medicine, and Internal Medicine.

The program deals with the sources, signs and the management of anxiety disorders.

**[www.diabetesroundtable.com/](http://www.diabetesroundtable.com/)**

The Diabetes Roundtable accessible at this web site is hosted by the Washington Hospital Center and offers courses in the format of text-and-graphics presentations. The content will be of interest to physicians in Family Medicine, Internal Medicine and Endocrinology.

The courses are in the topic areas of insulin therapy in patients with diabetes.

**[www.dimag.com/cme/](http://www.dimag.com/cme/)**

DiagnosticImaging.com is a web site hosted by the American College of Radiology. The educational

material is presented in text-only format. The subject content will be of interest to Radiologists. The courses available at this web site deal with MRI in the evaluation of stroke and the use of PET in clinical practice.

**[www.discoverymeded.com/](http://www.discoverymeded.com/)**

Discovery International is a web site that offers educational material of interest to physicians from many different specialties. The content is presented in the formats of text-only, video or slide-audio formats. Physicians in the specialties of Neurology, Anesthesiology, Oncology, Gynecology, Family Practice, Internal Medicine, Pulmonology, Gastroenterology and Rheumatology will be able to choose subject content that will be of benefit to them.

**[www.docguide.com/](http://www.docguide.com/)**

The Doctors Guide Webcasts web site presents educational material presented by many medical schools using a variety of formats of presentation. The web site allows the user to move to the individual sites. The user also has an option to modify the format so that materials of special interest are presented automatically when the site is opened.

**[www.drpen.com](http://www.drpen.com)**

**[www.familydoctor.org](http://www.familydoctor.org)**

These two web sites offer multilingual materials for patient education.

**[www.dvtcases.com/](http://www.dvtcases.com/)**

The web site on Deep Vein Thrombosis and Pulmonary Embolism presents case-based-interactive educational material targeting physicians in Emergency Medicine, Cardiology and Pulmonology.

The topics discussed are dyspnea and syncope, ambulation difficulties and dyspnea, and postoperative pulmonary failure with hip and femur fractures.

**[www.edcredits.com/meddescriptions.html](http://www.edcredits.com/meddescriptions.html)**

Ed Credits is a web site that provides educational material of general interest. The presentations are in text-only format.

A number of courses is accessible from the web site. They deal with topic areas such as AIDS, domestic

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violence, blood borne pathogens, tuberculosis, Alzheimer's disease, and advances in oncology.

**[www.emedhome.com/cme\\_about-cme.cfm](http://www.emedhome.com/cme_about-cme.cfm)**

The EMedHome web site presents a Feature Article CME on a monthly basis with content that is of interest to physicians in Emergency Medicine.

Articles that have appeared in the past are: Several Pertinent Relevancies in Emergency Medicine; It's Not Trivial!; ENT Emergencies; The Difficult Vascular-Access Patient in the ED; Withdrawal Syndromes in the Emergency Department; Hypothermia; The Sickle Cell Patient: Avoiding a Crisis in the ED; New Drugs from 2003 that Might Change Your Practice; and Plain Film Diagnoses You Cannot Afford To Miss. The users may take a quiz at the end of reading the article.

**[www.emedhome.com/cme\\_about-concert.cfm](http://www.emedhome.com/cme_about-concert.cfm)**

The EMedHome ConCert Article CME Program is a web site that presents text-and-graphics educational material, with credits awarded by the American College of Emergency Physicians. The content will interest physicians in Emergency Medicine. The web site gives access to a series of articles, which is available online or via email.

**[www.endo-society.org/](http://www.endo-society.org/)**

The Endocrine Society provides online CME-accredited Continuing Medical Education programs at this web site that allow the user to obtain CME credits. These programs are accessible to all participants interested in continuing their professional development and earning CME credits.

**[www.endo-society.org/education/index.cfm](http://www.endo-society.org/education/index.cfm)**

The Endocrine Society offers this course on Implications of Lipid Control in Type 2 Diabetes and Emergency Therapies.

**[www.endo-society.org/educationevents/online/endo-webcast.cfm](http://www.endo-society.org/educationevents/online/endo-webcast.cfm)**

The Endocrine Society hosts this web site and presents lectures from the Annual Meeting of the Endocrine Society 2004. The educational material is presented in slide-audio lecture format.

Among the presentations available at this web site are topics such as obesity, polycystic ovary, thyroid cancer, osteoporosis, growth hormone deficiency, acromegaly, Cushing's syndrome, metabolic syndrome, disorders of water balance, male infertility and sex hormone replacement therapy.

**[www.eneonatalreview.com/](http://www.eneonatalreview.com/)**

eNeonatal Review is a web site that is hosted by Johns Hopkins University. It gives access to a series of slide-video lectures. The content is targeted at Pediatricians, and a current topic in neonatal critical care is discussed each month.

**[www.ePocrates.com](http://www.ePocrates.com)**

This is a web site that allows a free drug reference database for use on Palm-compatible PDAs to be downloaded. The software, called qRx, was designed to help physicians prescribe appropriate drugs and reduce errors of medication. It provides information on dosage, adverse reactions, contraindications and drug interactions for over 1,600 commonly prescribed medications.

**[www.eqmr.com](http://www.eqmr.com)**

The web site offers services to Hospital Administrators and other health care professionals in areas that they need for successful practice. The organization focuses on clinical quality with financially sound approaches. The site also provides links to other web sites that provide information on child health, publications, data and statistics, and laws and regulations. In the area of traveler's health, there are sections on general health information, data and statistics, training and employment, and funding. Links are also available to societies dealing with quality assurance and utilization review.

**[www.familypractice.com/](http://www.familypractice.com/)**

The FamilyPractice.com web site offers a variety of educational materials that will be of interest to Family Practitioners. It is hosted by the American Board of Family Practice.

The *Image Quiz* section assesses the user's ability to identify clinical images. A series of images and Multiple Choice Questions are offered and the reader is required to respond to them.

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The *In-Training Exams* take the format of questions-and-answers. A large number of questions is available.

The section titled Lifecycle of Obesity Diagnosis and Management is case-based-interactive, and the educational material is related to clinical cases. The topics areas included are diagnosis of obesity, assessment of the over-weight and obese patient, non-pharmacological management, surgical intervention for the treatment of obesity, prescription medications for the treatment of obesity, childhood overweight, and metabolic syndrome.

The web site also provides a series of lectures in slide-audio or slide-formats. The topics dealt with are diagnosis and treatment of bipolar disorder, new legalities in pain management issues, real life experiences in treating post-traumatic stress disorder, legal and ethical issues affecting pain management, drug diversion and abuse, the treatment of geriatric agitation, AFP Guide to management of patients with intermittent claudication, and atherosclerosis & PAD: Weighing the Therapeutic Options. There is in addition a link to a case-based-interactive program on the diagnosis and treatment of osteoporosis.

The section on *Teen Smoking Cessation Cases* provides case-based interactive materials. In addition to Family Physicians the content will be of interest to Pediatricians.

Under *Family Practice Update*, the web site provides a set of lectures on many subject areas. They include allergy and immunology, osteoporosis, infectious disease and diabetes.

#### **[www.fbhc.org/cme/home.html](http://www.fbhc.org/cme/home.html)**

This web site, Foundation for Better Health Care (FHBC), offers five courses that are of general interest. The presentations are text-only or slide-only format. The topic areas that are dealt with are HIV in women, considerations for treating selected groups of HIV-infected patients, enhancing care through communication for managed care clinicians, and management of menopause.

#### **[www.fda.gov/medwatch](http://www.fda.gov/medwatch)**

MedWatch is an Internet gateway for safety information on the drugs and other medical products

regulated by the U.S. Food and Drug Administration. MedWatch, The FDA Safety Information and Adverse Event Reporting Program, serves both health care professionals and the public that uses medical products. It provides important clinical information about safety issues involving medical products, including prescription and over-the-counter drugs, biologics, medical and radiation-emitting devices, and special nutritional products (e.g. medical foods, dietary supplements and infant formulas).

Medical product safety alerts, recalls, withdrawals, and important labeling changes that may affect health are quickly disseminated to the medical community and the general public via this web site and the MedWatch E-list.

#### **[www.fluidtherapy.net/](http://www.fluidtherapy.net/)**

This web site dealing with fluid therapy presents educational material that will benefit health professionals in the fields of Anesthesiology, Critical Care, and Surgery.

The presentations are in text-only format. The subject content that is presented is in the areas of current concepts in fluid therapy, fluid management of critically ill patients, improving outcomes in critically ill patients through fluid resuscitation, fluid management in high-risk surgical patients, intra-operative colloid choices in the cardiovascular surgery, postoperative colloid choices in the cardiovascular surgery, and evidence-based fluid therapy for cardiac surgery patients.

#### **[www.fma.learnsomething.com/](http://www.fma.learnsomething.com/)**

This site maintained by the Florida Medical Association offers a series of online lessons that practitioners may use for earning CME credit. The Florida Medical Association is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

#### **[www.freecme.com/index1.php3](http://www.freecme.com/index1.php3)**

The freeCME.com web site provides a number of CME courses presenting content from many medical specialties. CME credits are awarded by the American College of Obstetrics and Gynecology, the American College of Emergency Physicians, and the American Academy of Family Physicians and

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societies connected to other medical specialties. The materials are presented in text-only, text-and-graphics, slide-audio lecture, slide-video lecture and case-based interactive formats.

**[www.futureofcolonoscopy.com/](http://www.futureofcolonoscopy.com/)**

This web site presents a course that discusses instruments, techniques, bowel preparation and indications for colonoscopy.

**[www.gama.cyberounds.com/](http://www.gama.cyberounds.com/)**

This web site offers an educational game that physicians who provide care to geriatric patients will find useful. The material is designed to help the physicians assess their diagnostic and clinical management skills and improve them.

**[www.geneticsolutions.com/default.htm](http://www.geneticsolutions.com/default.htm)**

GeneticSolutions.com web site provides educational materials that are of interest to physicians in the field of Genetics. The presentations are in case-based-interactive format.

The courses offered are entitled Introduction to Genetic Counseling, Genetic Testing in Clinical Practice, Overview of the Genetics of Hemoglobinopathies, Etiology of Sporadic and Hereditary Cancers, Mini-Review of the Molecular Genetics of BRCA1 and 2, Genetic Testing and Counseling for Hereditary Breast and Ovarian Cancer; and Case: Hereditary Breast and Ovarian Cancer.

**[www.geriatrictimes.com/cme.html](http://www.geriatrictimes.com/cme.html)**

Geriatric Times provides text-only CME that physicians in Family Medicine, Internal Medicine, and Geriatrics will find useful. Articles are available on Pharmacotherapy of Alzheimer's Disease, Secondary Prevention of Cancer, Herbal and OTC Sleep Remedies, Epidemiology and Psychosocial Aspects of Chronic Pain in Older Adults, and Involuntary Weight Loss and Malnutrition.

**[www.hemostasiscme.org/](http://www.hemostasiscme.org/)**

This web site hosted by HemostasisCME.org presents educational material in text-only, slides-only, slide-audio, and text-and-graphics formats. The target audience for the educational material is

Anesthetists, Gastroenterologists, Hematologists and Surgeons. The series of CME activities offered include those on the following topic areas: New Concepts in Hemostasis Management, Management and Monitoring of Excessive Bleeding in Surgery and Hemorrhagic Trauma, Control of Hemostasis, Excessive Bleeding in Surgery and Trauma, Treatment of Bleeding Complications in the Patient with Liver Disease, and Managing Catastrophic Bleeding Episodes. The user has the opportunity to review the content presented and taking a test.

**[gm.nlm.nih.gov](http://gm.nlm.nih.gov)**

**GratefulMed**

**[www.ncbi.nlm.nih.gov/entrez/query.fcgi](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi)**

**PubMed**

**[www.guidelines.gov](http://www.guidelines.gov)**

The increasing availability of clinical data makes the physician today better equipped to practice evidence-based medicine than ever before. Some of the online resources that provide access to evidence-based clinical practice guidelines are GratefulMed ([igm.nlm.nih.gov](http://igm.nlm.nih.gov)) and PubMed ([www.ncbi.nlm.nih.gov/entrez/query.fcgi](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi)), which provide access to clinical research articles. Another resource for information for evidence-based practice is the National Guideline Clearinghouse accessible at [www.guidelines.gov](http://www.guidelines.gov).

**[www.hivinsite.ucsf.edu](http://www.hivinsite.ucsf.edu)**

Courses for AIDS specialists are available at this web site. The topics include Liver Dysfunction, HIV/Hepatitis coinfection, Antiretroviral Therapy, and HIV Therapy in Triple-Diagnosed Patients.

**[www.hopkins-advantage.com/](http://www.hopkins-advantage.com/)**

ADvantage Alzheimer's Disease Management, is a web site that has sections on integrating the diagnosis and management of Alzheimer's disease into the practice setting, long-term treatment of patients with Alzheimer's disease, managing behavioral disturbances in patients with Alzheimer's disease, and a slide-video presentation.

The content will interest physicians in a number of different specialties such as Family Practice, Internal Medicine, Geriatrics, Neurology and Psychiatry. While most of the content is presented in text and

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graphic format, there is a unit as a slide-audio program.

**[www.horizonseries.com](http://www.horizonseries.com)**

The visitor to this web site may gain access to lectures on various aspects of depression. The material presented would benefit Psychiatrists, Family Physicians and physicians in Internal Medicine.

**[www.hrsonline.org/professional\\_education/learning\\_categories/](http://www.hrsonline.org/professional_education/learning_categories/)**

The Grand Rounds and Webcasts of the Heart Rhythm Society can be accessed from this web site. The materials are presented in text-and-graphics and case-based-interactive formats. The content is targeted at Cardiologists. The lectures deal with the topic areas of atrial fibrillation, ablation, basic science, heart failure and sudden cardiac death.

**[www.hsc.virginia.edu/education-research](http://www.hsc.virginia.edu/education-research)**

This web site gives links to four CME sites: Attention Deficit Hyperactivity Disorder (AD/HD), Cardio-Village, The ClinicalEdge, and Multiple Small Feelings of the Mind.

**[www.iame.com/learning/online.html](http://www.iame.com/learning/online.html)**

The Institute for Advanced Medical Education (IAME) provides a series of CME courses in medical imaging, including some under the titles of PET in the Evaluation of Alzheimer's Disease and Related Dementias, Three Dimensional Ultrasound in Gynecology: Where is it Applicable?, and Pyloric Atresia.

The courses are presented in text-and-graphics format. The programs are developed by internationally recognized faculty with physicians in Cardiology, Gynecology, Radiology and Surgery as the target audience. The user has the opportunity for interaction with faculty and colleagues. The programs emphasize practice case reviews as an educational tool.

**[www.ibh.com/](http://www.ibh.com/)**

The Institute for the Advancement of Human Behavior (IAHB) is a fully accredited sponsor of continuing

education and continuing medical education for mental health, chemical dependency, and substance abuse treatment providers. It provides clinical training to health care professionals as well as to companies and individuals with health care-related interests. A number of courses are offered online.

IAHB presents workshops and seminars conducted by scientist-practitioners who have demonstrated exceptional teaching abilities. Most of these programs are open only to healthcare professionals. Continuing education credit is offered to psychologists, counselors, social workers, physicians, EAP specialists, and a variety of other licensed professionals.

**<http://igr.medsite.com/>**

This web site gives access to Interactive Grand Rounds from Medsite. The educational activity takes the format of questions-and-answers and text-only review article. Physicians practicing in a wide range of specialties will find presentations that would be of interest to them.

The courses are offered as case presentations and a set of multiple choice questions. The user has access to an article that provides the answers to any set of questions. The topic areas dealt with are in the fields of Arthritis, Bioterrorism, Cardiology, Chronic Obstructive Pulmonary Disease, Diabetes, Endocrinology, Immunology, Infectious Diseases, Oncology, Ophthalmology, Optometry, Pediatrics, and Psychiatry.

**[www.imedex.com/calendars/webcasts.htm](http://www.imedex.com/calendars/webcasts.htm)**

This website hosted by Imedex presents slide-video lectures that will benefit physicians in the fields of Hematology and Oncology. The program deals with myeloma and plasma cell disorders and their treatment. There is emphasis on cytogenetic markers, thalidomide, immunomodulatory therapies and bortezomib-based therapies.

**[www.immunize.org](http://www.immunize.org)**

Many physicians today serve patients whose primary language is not English. A collection of copyright-free multilingual patient education materials regarding immunization and vaccination is available at the site. All of the materials are reviewed for technical

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accuracy by the Centers for Disease Control. The site also provides immunization updates, guidelines and answers to difficult questions.

**[www.impromed.org/CME/index.asp](http://www.impromed.org/CME/index.asp)**

This website offers educational material that has been designed with Ophthalmologists as the target audience. The program is presented in slide-and-text and slide-video-lecture formats.

It deals with studies that had been undertaken in the topic areas of glaucoma, and safety and efficacy in current glaucoma treatment. The presentations include the Collaborative Normal Tension Glaucoma Study, the Advanced Glaucoma Intervention Study, the Collaborative Initial Glaucoma Treatment Study, the Ocular Hypertension Treatment Study, the Early Manifest Glaucoma Trial, and the Ocular Hypertension Treatment Study (OHTS).

**[www.interventionalgenetics.com/](http://www.interventionalgenetics.com/)**

The content presented at this web site in the format of slide-audio presentation offers a course for the practitioner in Genetics. The program deals with the screening, diagnosis, and management of rare diseases.

**[www.jeffline.tju.edu/jeffcme/](http://www.jeffline.tju.edu/jeffcme/)**

A variety of topics of interest to the Family Physician, Cardiologist, Neurologist and the Urologist is available at this web site.

**[www.journalbytes.com/](http://www.journalbytes.com/)**

Journalbytes is an online journal review service and continuing education resource that provides access to vital information important in professional practice. The site provides access to a database of journal article reviews, practical commentary from experts, electronic tracking of the tables of contents of selected journals, content downloads to hand-held devices and MP3 players, and access to a library of full-text articles for continuing education.

The medical and dental specialties covered include Bioterrorism, Chest Medicine, Cosmetic Dentistry, Gastroenterology, General Surgery, Integrative Medicine, Internal Medicine, Medical Errors, Neurology, Orthodontics, Pathology, Pediatric Dentistry, Pediatrics, Radiology and Urology.

**[www.labcorp.com](http://www.labcorp.com)**

This site gives PDF articles on laboratory issues. The materials that are presented are aimed at physicians practicing in the field of Pathology.

**<http://library.digiscript.com/>**

This web site, Digiscript, offers slide-audio and slide-video format lectures. A large number of courses is available in many different specialties in medicine. The educational materials are based on presentations made at various medical meetings.

**[www.lipidhealth.org/](http://www.lipidhealth.org/)**

The National Lipid Education Council (NLEC) is a multidisciplinary panel of experts in lipid management, cardiology, and primary care. Launched initially as the Lipid Management in Clinical Practice program, the NLEC has the dissemination and implementation of National Cholesterol Education Program Adult Treatment Panel III (NCEP ATP III) guidelines as a goal. The primary focus of the NLEC initiative is to educate physicians and other health care professionals about the rationale for cholesterol-lowering therapy, specifically to achieve LDL-C targets, with emphasis on more aggressive action in under-treated high-risk groups. The site offers a range of CME activities that allow the reader to get CME credit.

**[www.main.uab.edu/uasom/](http://www.main.uab.edu/uasom/)**

The web site provides materials that will benefit practitioners in many different specialties, though emphasis is on Primary Care. About 50 courses are available.

**[www.massmed.org](http://www.massmed.org)**

Online CME programs and other forms of CME are available through this web site presented by the Massachusetts Medical Society. NEJM, the journal of the society provides continuing medical education opportunities based on specific articles.

The *NEJM Weekly CME Program* offers examinations based on specific articles in the *New England Journal of Medicine*. Examinations are available on the Web or in print form.

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The *NEJM Review CME Program* offers examinations based on selected articles from the previous 6-month volume of the *New England Journal of Medicine*. They are scheduled for March and September of each year.

**[www.med.nyu.edu](http://www.med.nyu.edu)**

This web site provides content in psychiatry in the format of Questions and Answers.

**[www.medicale.com/](http://www.medicale.com/)**

**[www.medinfosource.com/](http://www.medinfosource.com/)**

These two related web sites contain courses in psychiatry.

**[www.mededinteractive.com](http://www.mededinteractive.com)**

A set of courses is provided here for physicians with special interest in ultrasound. The programs include Renal Duplex Ultrasonography: Techniques and Pitfalls; Sonographic Approach to Breast Evaluation; Thyroid Ultrasound, and Emergency Medicine Pelvic Ultrasonography.

**[www.medcases.com/Physician/cme\\_portal.asp](http://www.medcases.com/Physician/cme_portal.asp)**

MedCases is a medical education eLearning company and ACCME-accredited provider of continuing medical education (CME). It develops clinical educational programs that are peer-reviewed. The content is presented using interactive simulated patient encounters to help practicing physicians undertake continuing education.

The interactive format that is used in presenting the programs allows faculty to assign cases, review progress, and evaluate scores via the Internet. Students and residents have an opportunity to develop clinical expertise online in a range of disease states and diagnoses from many different specialties.

**[www.medjet.net](http://www.medjet.net)**

This site gives access to an automated system that emails abstracts of articles on topics of interest to individual practitioners. The system notifies the practitioner about new articles of interest, and eliminates the need to browse articles that may not be useful. The abstract email service was developed by

physicians so that their colleagues would have information delivered directly to their email boxes. The web site offers a large number of journals, grouped by specialty. The practitioner can sign up for as many journals or collections of journals as preferred.

**[www.medical-programs.com/](http://www.medical-programs.com/)**

This web site provides access to a set of CME modules consisting of a series of lectures on cancer treatment.

**[www.medicalsimulations.com](http://www.medicalsimulations.com)**

This web site presents content that is aimed at surgeons. Case-based simulations on wound care management involving the use of ApliGraf are dealt with in the presentations.

**[www.medinfo.ufl.edu/](http://www.medinfo.ufl.edu/)**

The site offers learning modules presented by University of Florida. The topics include health care for the older person, Influenza A to B, Post-Menopausal Osteoporosis and Using the Internet effectively.

**[www.medrisk.com](http://www.medrisk.com)**

MedRisk eLearning Services provided by Medical Risk Management gives the health care professional with access to continuing education. The programs are available to individual physicians as well as hospitals, clinics, specialty societies, medical liability insurance carriers and other institutions concerned with continuing medical education and professional development for physicians.

Medical Risk Management, Inc. aims to enhance patient care by educating physicians in principles and techniques of patient safety and medical error prevention, to enable physicians to better care for patients and reduce the potential for medical errors. The organization periodically assesses the needs of physicians and makes available seminars, workshops, and programmed learning materials on the subjects of patient safety, medical error prevention, medical risk management, and quality improvement. These activities are developed and conducted by medical risk management experts and are made available through workshops as well as independent

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learning programs in both pre-printed and Internet formats. Each activity is evaluated to assess its effectiveness, and the information obtained is used to identify future program needs. Physicians are encouraged to report long-term changes in practice patterns that are attributed to these CME programs, to enable the program designers to determine how best to deliver CME that will produce desired change and measurable results.

**[www.medscape.com/](http://www.medscape.com/)**

Medscape offers free, continuously updated continuing education activities for physicians and other health professionals. These activities have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME), and have been developed by ACCME-accredited organizations.

Medscape is accredited by the ACCME to provide continuing medical education for physicians. Topics on which content is presented cover a wide range of medical specialties.

**[www.medsitecme.com/](http://www.medsitecme.com/)**

MedsiteCME presents case studies in a variety of clinical topics. The content is developed considering the specific needs of clinicians.

All content is reviewed through a process that includes study by physician experts serving as case editors at different levels, the Editor-in-Chief, and the CME-sponsoring organization. MedsiteCME activities are announced in peer-reviewed journals that have agreed to be case partners. Announcements include case previews and supplementary articles.

All MedsiteCME activities are sponsored for CME credit and are offered free of charge. Participants in MedsiteCME can earn category 1 credit towards the AMA Physician's Recognition Award by managing a case and completing the registration/evaluation form.

**[www.meetingcast.com/](http://www.meetingcast.com/)**

MeetingCast utilizes Internet technologies and multimedia broadcast techniques to create web casts, graphic presentations and web-based educational courses.

All MeetingCast programs are designed to be user-friendly and user-paced. The interactive format allows for easy registration, program evaluation and continuing education accreditation, where appropriate.

**<http://members.asnr.org/webcast/content/default.asp>**

The American Society of Neuroradiology (ASNR) presents this material targeting Neurologists and Radiologists.

ASNR eCME features recognized neuroradiology lecturers on timely topics, presented in most cases as Real Media audio presentations with slide-show format. The materials represent either original submissions created for ASNR eCME or captured live presentations from the ASNR Annual Meeting and NER Foundation Symposium. The American Society of Neuroradiology (ASNR) takes responsibility for the content, quality and integrity of the CME activity.

The presentations cover the following topics: performing spectroscopic examination, the basics of magnetic resonance spectroscopy, hyperacute therapy for ischemic stroke, and intraoperative MR-guided neurosurgery.

**[www.moffitt.usf.edu/pubs/ccj/index.htm](http://www.moffitt.usf.edu/pubs/ccj/index.htm)**

The *Journal of the Moffitt Cancer Center* presented at this web site provides Oncologists text-and-graphics online peer-reviewed articles. Discussion of one major type of cancer and additional articles appear in each issue. The topics that have been dealt with recently are Neurooncology, constipation in the cancer patient, pancreatic cancer, and myeloma.

**[www.mssmtv.org/](http://www.mssmtv.org/)**

The Online CME at the Mount Sinai School of Medicine web site supplies audio and video presentations of the most recent medical conferences and symposia allowing readers to get CME credit.

MSSMTV is the Mount Sinai School of Medicine's interactive distance learning program for continuing medical education. It encompasses live and archived video content, interactive on line quizzes and surveys, topic-specific discussion forums, private and public emailing and a collection of CME content.

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Mount Sinai uses the Internet and CD ROM to make available CME resources to health care providers worldwide. The programs will remain accessible online indefinitely for reference, examination and education.

**[www.muhealth.org](http://www.muhealth.org)**

This web site offers courses in the management of diabetes.

**[www.natalu.com/](http://www.natalu.com/)**

This web site is developed with neonatologists as the target audience. The topics are dealt with as evidence-based presentations, picture format or radiographs or as puzzles.

**[www.needymeds.com](http://www.needymeds.com)**

This web site posts drug information by manufacturer, drug name or category.

**[www.netce.com/](http://www.netce.com/)**

CME Resource provides NetCE (NetCE Continuing Education Online) as a resource to health care professionals. Accredited continuing education is available online to a range of health professionals including physicians and dentists. Provider-directed independent study activities allow health care professionals reach their learning goals. The visitors to the site may:

- Read or print on-line courses;
- Complete a test on-line and submit answers; electronically or print the test confirmation;
- Order course materials from complete course listings.

CME Resource also provides NoTestCE, a Knowledge-Based Assessment (KBA) site.

**[www.neurology.org/](http://www.neurology.org/)**

The online version of *Neurology*, the Journal of the American Academy of Neurology includes a continuing medical education (CME) component that is available to subscribers. The subscribers may take the quizzes online, receive instant feedback on their selected answers, submit completed issue quizzes for CME credit, and receive confirmation of credit via email. A CME Summary Report gives the user the opportunity to review all the credits earned.

**[www.noah-health.org](http://www.noah-health.org)**

Information on a number of health topics, including AIDS, cancer, heart disease and stroke is available at this web site hosted by the New York Online Access to Health (NOAH) organization. The content presented will be of interest to physicians from many different specialties.

**<http://obesitycme.nhlbi.nih.gov/>**

This web site presents an assessment and management of overweight and obese adult patients. The instruction, which mostly takes the format of text, is targeted at physicians in Family Practice and Internal Medicine.

The content deals with the importance of weight management, the health risks associated with overweight and obesity, the motivations and barriers to weight loss and the use of treatment algorithms in selecting patients for management.

**[www.orthobluejournal.com](http://www.orthobluejournal.com)**

The Online issue of *Orthopedics* is accessible at this web site. It contains one article which gives the reader the opportunity to obtain CME credit.

**[www.osteoporosiscme.org/](http://www.osteoporosiscme.org/)**

This course takes the format of a slide-audio presentation. It offers lectures on the diagnosis and treatment of osteoporosis.

**[www.pain.com/](http://www.pain.com/)**

Pain.com is a site that provides access to a range of continuously updated CME/CPE/CE activities. Each of these programs has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME).

**[www.path.upmc.edu](http://www.path.upmc.edu)**

A set of cases, including a brief clinical history, pictures of gross pathology and descriptions of the findings and diagnosis is available at this web site. A post-instruction test is included.

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**[www.pedasthma-cme.com/](http://www.pedasthma-cme.com/)**

This web site provides access to subject content related to childhood asthma and allergies, and will be of interest to Family Physicians and Pediatricians. The presentations are in slide-only format. The user will be able to update his or her knowledge on childhood asthma and allergic rhinitis and the diagnosis and management of these conditions.

**[www.pedialink.org/pedialink/cme/coursefinder/CMEInternet.cfm](http://www.pedialink.org/pedialink/cme/coursefinder/CMEInternet.cfm)**

The PediaLink site of the American Academy of Pediatrics offers instruction in the format of case-based-interactive with group discussions, question-and-answer and text-only presentations. The sessions provide subject content that targets Pediatricians and Family Practitioners.

The program deals with quality improvement in practice through assessment and developing an action plan.

The *Self-Assessment Exercises* offer multiple choice questions including critiques and links to references.

The other online courses available include AAP Asthma Coding Clues, Childhood, Dermatology topics, Understanding SSI Disability for Children, Early Brain & Child Development, Introduction to Car Safety Seats, and Early Education and Child Care.

**[www.pedsref.org](http://www.pedsref.org)**

Slide-audio lectures on pediatric topics are available at this web site. The topics include Emergency Preparation, Temper and Sleep Problems, Management of Febrile Pediatric patients, Pediatric Infections, and Asthma and Bronchiolitis.

**[www.phppo.cdc.gov/phtnonline/](http://www.phppo.cdc.gov/phtnonline/)**

This CDC Training and Continuing Education Online web site presents slide-audio format lectures targeting physicians in the fields of Preventive Medicine and Infectious Diseases. The programs cover a series of topics in Public Health, Preventive Medicine and vaccination.

**[www.physician.pdr.net](http://www.physician.pdr.net)**

This web site provides CME material associated with three online journals. The subject content presented

is aimed at Obstetricians & Gynecologists, Family Practitioners, and Pediatricians.

**[www.physsportsmed.com](http://www.physsportsmed.com)**

The Physician and Sportsmedicine Online is a source for primary care sports medicine clinical and personal health articles. The site offers a continuing education opportunity in collaboration with the American College of Sports Medicine (ACSM). The online tests offer AMA Category 1 CME credits. The tests are based on the same information in the journal (1 month after print publication).

**[www.postgradmed.com](http://www.postgradmed.com)**

Postgraduate Medicine is a peer-reviewed medical journal published monthly for primary care physicians. It provides practical and authoritative information that physicians can immediately put to use. Each issue features a symposium of articles on a selected topic, plus patient education handouts. Articles are indexed in MEDLINE and accredited for AMA Category 1 or AAFP Prescribed CME credit.

Readers can earn multiple credits in Category 1 of the Physician's Recognition Award of the American Medical Association or multiple Prescribed hours from the American Academy of Family Physicians.

**[www.postoperativepaincme.com/index.php](http://www.postoperativepaincme.com/index.php)**

This web site presents slide-only format material that will be of interest to Anesthetists and other practitioners dealing with the management of pain.

The subject content presented is on the topics of neural pathways for pain and sites at which opioids modulate pain signals, the physical and chemical characteristics of opioids, and options in the management of postoperative pain.

**[www.powerpak.com/CE](http://www.powerpak.com/CE)**

This web site gives access to a number of continuing educational programs. Some of the topic areas dealt with are degenerative arthritis of the hand, optimizing acid suppressive therapy in acutely ill patients, advice and treatment for androgenic alopecia.

**[www.primarycarenet.org](http://www.primarycarenet.org)**

The courses available at this site target Family

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Practitioners, and deal with the topics of headaches and migraine.

**[www.psych.org/cme/apacme/](http://www.psych.org/cme/apacme/)**

The American Psychiatric Association hosts this web site that presents text-only or slide-audio format lectures that will benefit Psychiatrists. The topics dealt with are the treatment of patients with schizophrenia, and the assessment and treatment of patients with suicidal behaviors.

The *Clinical Highlights Program* offers symposia from the APA Annual Meeting. The following themes are discussed: evidence-based medicine approach to pediatric psychiatry, psychosis in Alzheimer's disease, and chemical restraints.

Additional topics presented at the web site are the use of buprenorphine for the treatment of opiate addiction, bipolar disorder, borderline personality disorder, delirium, Alzheimer's disease, major depressive disorders, panic disorder, and eating disorders, molecular biology of memory, and an overview of HIV and AIDS for psychiatrists.

**[www.primarycarenet.org/pcs](http://www.primarycarenet.org/pcs)**

Primary Care Network, Inc. provides medical education and training that offer CME credit. The scope of the programs includes the understanding, recognition and management of disabling headaches and irritable bowel syndrome and other chronic disorders such as asthma, diabetes, insomnia, depression, anxiety, and fibromyalgia.

The potential participants are physicians who practice longitudinal care of their patients. The content will be of benefit to primary care physicians, internists, obstetricians and gynecologists, psychiatrists, general neurologists, and any specialist who treats the primary care needs of a population of patients.

**[www.prouis.com/ADA2003/](http://www.prouis.com/ADA2003/)**

The American Diabetes Association 2003 Meeting Official Webcasts are available at this web site. They take the format of slide-video lectures. The content is targeted at endocrinologists.

The web casts are titled The ABCs of HDL and Cholesterol Metabolism, Adipose Tissue Factors/Inflammation, The Complementary Roles of Gluco-

regulatory Hormones, and Treating to Goal and Beyond: Closing the Gap in Type 2 Diabetes.

**[www.projectsinknowledge.com/](http://www.projectsinknowledge.com/)**

This web site offers a series of lectures that physicians in the fields of Family Practice, Gastroenterology, Neurology and Psychiatry will find beneficial.

**[www.psych.org/cme/apacme/](http://www.psych.org/cme/apacme/)**

This web site provides access to text-based treatment guidelines for psychiatric conditions.

**[www.psychiatrist.com](http://www.psychiatrist.com)**

The online *Journal of Clinical Psychiatry* is accessible at this web site. It provides various courses offering CME credits. Joining the NetSociety gives access to most CME activities.

**[www.psychlink.pwpl.com](http://www.psychlink.pwpl.com)**

This web site provides expert discussions and archived material in the field of psychiatry. The presentations may be viewed online or downloaded as PDF files for use later.

**[www.radinfonet.com/](http://www.radinfonet.com/)**

This site offers a number of courses, with CME awarded by the Ithaca Center for Postgraduate Medical Education.

**[www.radiologycme.stanford.edu/online/](http://www.radiologycme.stanford.edu/online/)**

Educational materials for CME for Radiologists and technologists, covering Breast Imaging, Cardiac MR, Interventional Radiology, Multidetector Row CT, Musculoskeletal Imaging and Nuclear Medicine are available at this web site.

**[www.rcplive.ac](http://www.rcplive.ac)**

RCPlive is a series of live online meetings, which covers major therapeutic areas in medicine and provide updates on advances in clinical practice for physicians, doctors in training and GPs.

Each meeting presents speakers live, synchronized slides and opportunity for submitting questions. An archived record of the meeting will follow. The meeting with Q&A session will last for one hour,

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earning participating practitioners one External CPD credit.

RCPlive is organized by the Royal College of Physicians of London and is for the medical profession only.

**[www.respiratorycme.org](http://www.respiratorycme.org)**

Sets of slides and online lectures on various aspects of the management of asthma are available at this web site.

**[www.rheumatology.hss.edu/phys/CME/CME.asp](http://www.rheumatology.hss.edu/phys/CME/CME.asp)**

The Hospital for Special Surgery CME Online Programs' CME material is presented by the Weill Medical College of Cornell University. The content is aimed at practitioners in Rheumatology and is presented in slide-video-lecture format. Programs are available in the topic areas of ultrasound and MRI in the early diagnosis of joint damage in rheumatoid arthritis, combining a biologic agent with methotrexate in the treatment of RA, and the impact of biologic agents in the therapy of RA.

**[www.rmfcme.com/](http://www.rmfcme.com/)**

The courses designed by RMF address the risk management issues facing health care providers today.

All RMF CME Online courses have been reviewed and tested by Harvard-affiliated physicians and industry experts. The courses are designed to provide participants with the fundamentals of patient safety and risk management and methods to increase the safety of the patients and staff. Selected groups of users are eligible to claim AMA category 1 credit through Harvard Medical School for the presentations.

**[www.roseplace.com](http://www.roseplace.com)**

Many web sites now offer health-related information and services for the elderly and their caregivers. This site provides fact sheets that explain various care options, including home care, assisted living care, continuing care, skilled nursing care, respite, adult day care and hospice care. Also included are tips on what to look for in a facility and questions to ask when visiting a care community.

**[www.rsna.org](http://www.rsna.org)**

Several types of CME instruction are available at this site. The content is primarily oriented to meet the educational needs of Radiologists.

**[www.rxassist.org](http://www.rxassist.org)**

This web site hosted by the Robert Wood Johnson Foundation gives information on over 100 pharmaceutical manufacturers' patient assistance programs. The database can be searched by manufacturer name, medication (branded or generic name) or therapeutic class, and displays each company's program criteria guidelines along with application instructions.

**[www.sa03abstracts.org/](http://www.sa03abstracts.org/)**

The American College of Emergency Physicians hosts selected abstracts from the 2003 Scientific Assembly at this site. The content is presented in the format of text and graphics. Abstracts are offered under the titles of Rapid Deployment of Real-Time Surveillance for Chemical and Biological Terrorism, RSI (Rapid Sequence Intubation), Altered Levels of Consciousness, Ambulance Rallies and EMS Competitions, Trauma: A Visual Odyssey, Emergency Department Complaints in the First 28 Days of Life, Acute Coronary Syndromes, and Alternative Medicines.

**[www.seronosymposia.org](http://www.seronosymposia.org)**

Serono Symposia International is a non-profit organization dedicated to delivering educational activities and programs that meet the need of health care professionals for continuing education and continuing professional development.

The educational programs that are available include international scientific symposia, postgraduate courses, preceptorships, or self-study courses (online, monograph, CD-ROM). The main learning pages are on reproductive health, multiple sclerosis, endocrinology and metabolism, and dermatology.

Faculty members represent a broad range of views, covering critical issues from a variety of angles.

Serono Symposia International, Inc. is accredited by the Accreditation Council for Continuing Medical

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Education and the American Council on Pharmaceutical Education.

**[www.sessionsonline.org/](http://www.sessionsonline.org/)**

The American Heart Association Scientific Sessions 2003 are presented at this site in the format of text-and-graphics. The content will be beneficial to Cardiologists.

The highlights of the sessions are available, and the reader has the opportunity to answer questions in the areas of basic science, clinical science, population science or lipids.

**[www.sma.org](http://www.sma.org)**

The activities of Southern Medical Association (SMA) include developing and presenting educational programs in multimedia formats, and offering resources to make practice more efficient and successful. Visitors to the web site read the CME that is provided online or print a copy for later use and respond to self-assessment questions. An electronic Credit Request Form is available. Content is also offered as a series of online lectures.

**[www.snm.org](http://www.snm.org)**

Visitors to this web site will be able to access courses in nuclear medicine. Users may obtain credits awarded by the Society of Nuclear Medicine.

**[www.stdhivtraining.org/](http://www.stdhivtraining.org/)**

The California STD/HIV Prevention Training Center hosts this web site that presents information of interest to physicians in Family Practice, Internal Medicine, Pediatrics, Gynecology and Infectious Diseases. The presentations are case-based-interactive. The course deals with chlamydia. The importance of screening of women for chlamydia and the management of chlamydia infected patients and their partners are discussed.

**[www.tafp.org](http://www.tafp.org)**

This website offers presentations for the Family Physician. The topic areas dealt with are End of Life Care, Pediatric Asthma, Managing HIV, Migraine, Allergic Rhinitis, Depression and Sexual Side Effects, Erectile Dysfunction, and Pre-Term Labor.

**[www.tctmd.com](http://www.tctmd.com)**

TCTMD.com is a web site that provides online CME materials in Interventional Cardiology and Vascular Medicine. Topics include Acute coronary syndromes and MI, Angiogenesis/Myogenesis, Atherosclerosis, Cardiovascular surgery, Congenital heart disease, Coronary devices, Coronary lesion subsets, Imaging, Non-coronary intervention, Non-cardiac Intervention, Pharmacology, Restenosis, and Vulnerable Plaque.

**[www.theanswerpage.com/](http://www.theanswerpage.com/)**

TheAnswerPage.com is a family of educational web sites for the medical professional. The specialty sites feature the Question of the Day, complete with a peer-reviewed, referenced answer authored by faculty from Harvard Medical School and other distinguished institutions.

Readers can receive AMA PRA category 1 Continuing Medical Education credit for reading the Question of the Day without the requirement for quizzes. Users can earn their continuing education credits on either the web sites, or on handheld computers.

**[www.thyroidmanager.org/](http://www.thyroidmanager.org/)**

Thyroid Disease Manager is a web site that offers analysis of thyrotoxicosis, hypothyroidism, thyroid nodules and cancer, thyroiditis, and all aspects of human thyroid disease and thyroid physiology. It provides physicians, researchers, and trainees with an authoritative, current, and downloadable source of information on the thyroid. This web site contains a newly revised version of the textbook *The Thyroid and its Diseases* and supplementary information, all aimed at helping physicians care for their patients who have thyroid problems.

Category I CME credits are provided in collaboration with the Center for Continuing Education of the University of Chicago. The CME program comprises modules requiring 1 to 3 hours study and examination time. Each module covers an important topic in clinical thyroidology.

**[www.tmci.org/](http://www.tmci.org/)**

Tufts Health Care Institute (THCI) provides interactive online educational resources and assessment tools. These resources focus on specific topics

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related to improving quality in health care and managing the care of individuals and patient populations. The subject content provided deals with the learning objectives cited by the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS), especially with respect to the competencies of Systems-based Practice and Practice-based Learning and Improvement.

Individual practitioners can take online CME-accredited learning modules, complete self-assessment instruments, and view an online library of bibliographic resources.

Graduate medical education programs and institutions, medical schools, and schools for training health care professionals can subscribe to utilize THCI's enhanced *Online Learning Campus*, which offers online learning modules, clinically focused exercises, assessment tools, a portfolio, bibliographic resources, and report-writing capabilities to help faculty teach, and residents to acquire and demonstrate knowledge and skills, primarily in the competency areas of:

Systems-based Practice, and  
Practice-based Learning and Improvement.

#### **[www.turner-white.com](http://www.turner-white.com)**

The web site gives access to a number of journals that help physicians to improve outcomes of care.

The journals include *Hospital Physician*, which deals with practice strategies for residents and practicing physicians, *The Journal of Clinical Outcomes Management*, dealing with evidence-based practical information for improving health care quality, and *Seminars in Medical Practice* that link Accreditation Council for Graduate Medical Education (ACGME) competencies to clinical practice, and *Hospital Physician Board Review Manuals*, which are study guides for board certification in many specialties.

#### **[www.upmc.edu/ccehs](http://www.upmc.edu/ccehs)**

This web site offers educational materials that physicians practicing in the fields of Internal medicine and Family Medicine find useful.

#### **[www.utsouthwestern.edu](http://www.utsouthwestern.edu)**

UT Southwestern provides lifelong learning

opportunities for health professionals. The office of continuing education at UT Southwestern is responsible for coordinating accredited medical education programs for Southwestern Medical School, the Graduate School of Biomedical Sciences and Southwestern Allied Health Sciences School. The office provides a range of professional medical education programs.

The Accreditation Council for Continuing Medical Education (ACCME) accredits the CME program to provide continuing medical education for physicians.

#### **[www.uwcme.org/site/home/](http://www.uwcme.org/site/home/)**

The University of Washington School of Medicine provides a continuing medical education program to meet the postgraduate education needs of medical professionals nationally and internationally. The Office of CME oversees a wide variety of CME accredited activities that range from live courses to independent self-study activities.

The CME Office continuously conducts needs assessment and seeks feedback on how to improve the CME program and the content offered.

#### **[www.vaccinetoday.com](http://www.vaccinetoday.com)**

Four lectures on vaccine safety, presented previously as an AAP satellite symposium may be accessed at this web site. The content targets Family Practitioners and Neurologists.

#### **[www.vcu-cme.org/](http://www.vcu-cme.org/)**

Two courses, the *Role of GABA in the Pathogenesis and the Treatment of Anxiety and Absence Seizures and Syndromes*, are available at this web site. The target audience is physicians practicing in the fields of Family Practice and Neurology.

#### **[www.vh.org](http://www.vh.org)**

The Virtual Hospital, hosted by the University of Iowa, provides medical information that helps practitioners take better care of their patients. It is aimed at lowering the barriers that practitioners experience when trying to access information usually available only in print form in libraries distant from the point of care. Virtual Hospital is a digital health sciences library created to help meet the information needs of health care providers and patients. It

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makes the Internet a useful medical reference and health promotion tool. The digital library contains an extensive collection of textbooks and booklets.

**[www.vlh.com/shared/courses/course\\_info.cfm?courseno=20](http://www.vlh.com/shared/courses/course_info.cfm?courseno=20)**

The educational materials presented at this web site take the format of questions-and-answers, and will be of interest to physicians in Family Practice, Internal Medicine, and Pediatrics. A series of questions related to many specialties that will be of special relevance in Primary Care practice is available. The user has the opportunity to compare his or her own responses with those of other practitioners.

**[http://webcampus.med.mcphu.edu/cme/medicine/med\\_study.html](http://webcampus.med.mcphu.edu/cme/medicine/med_study.html)**

The *Internet Online Medical Monograph Series* contains text-only educational material that will be of interest to physicians in Family Medicine and Internal Medicine. A series of monographs on a variety of topics is available at the web site. The content is accompanied by quizzes in some presentations.

**<http://webcampus.med.mcphu.edu/cme/pcgr>**

This web site's *Virtual Grand Rounds* offers educational material in the format of slide-video-lectures for physicians in Family Medicine and Internal Medicine. Lectures in general Internal Medicine and medical subspecialty areas is available. These include presentations on the management of hypertension, management of diabetes mellitus, and anticytokine therapy in inflammatory bowel disease.

**[www.wml.com](http://www.wml.com)**

World Medical Leaders is a physicians-only Internet site where practitioners from around the world could

learn from and interact with reputed medical educators. World Medical Leaders chooses its faculty based on their medical and teaching credentials, and the faculty select the subjects that are the most applicable to the needs of practicing physicians. All lectures are patient-focused, clinically-directed, and case study-based. The services that are available include symposia and lectures, Continuing Medical Education credit for all medical content, Faculty Interaction, MEDLINE search, and Links to useful Internet sites.

**<http://cmejama-archives.ama-assn.org/>**

This website presents content from JAMA and Archives. The instruction format used is text-and-graphics.

The presentations would be of interest to physicians from many different specialties as the subject content included comes from a number of fields such as Internal Medicine, Dermatology, Neurology, Ophthalmology, Otolaryngology, and Surgery.

**<http://jeffline.tju.edu/jeffcme/online/>**

The Office of CME of the Jefferson Medical College hosts this web site. The material would be of interest to practitioners in Family Medicine, Internal Medicine, Cardiology, Neurology, and Urology. The topic areas in which presentations are available include dyslipidemia in diabetes, Uterine Fibroid Embolization, Mediastinoscopy and Surgical Advances for Treating Lung Cancer. Case studies area provided in Diabetes and Cervical Pathology.

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## DENTISTRY

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### **[www.arcmesa.org/](http://www.arcmesa.org/)**

ArcMesa Educators is a continuing education provider for dentists, dental hygienists, physicians, physician assistants, nurses, pharmacists, dietitians, diabetes educators, and radiology technologists.

The web site delivers CE courses online, with CME/CE course materials and online testing with immediate grading and certification. The site also provides live online programs for up to 50 participants with instant archival of each program for review by those attending the initial program as well as by others unable to attend the live program.

### **[www.agd.org](http://www.agd.org)**

The Academy of General Dentistry offers an online CE series produced by rdental.com. Some of the online continuing dental education courses available are on the topics of Esthetic Management of the Gingival Embrasure in Restorative Dentistry, and Interdisciplinary Management of Anterior Esthetic Dilemmas.

### **[www.cdeonline.org](http://www.cdeonline.org)**

The Florida Dental Association Council provides CDEonline.org for online continuing dental education. The courses available include ones on the topics of Using the Internet as an Adjunct to Clinical Care, and The Online Dental Community: A Primer for Dental Leadership.

### **[www.dds-online.com](http://www.dds-online.com)**

Davidoff Dental Seminars Online offers lectures and instruction materials for continuing education for the dental professional on the following topics:

Transitional Dental Implants, Biological Width/Dental Implants, Basic Bone Grafting, Paragon Implant System, Mandibular Over-dentures, Minimum Implant Determination, Grafting for Implants, Orthodontic Management, Empress Crowns, Mandibular Edentulism, ERA Implant Overdentures, and ZAAG Implant Overdentures.

### **<http://www.dentrek.com/>**

DenTrek conducts continuing education in association with the American Dental Association, the American Association of Dental Examiners, the American Dental Education Association, the Canadian Dental Association and the recognized dental specialties. Courses are presented by dental schools, dental societies and companies that specialize in course presentations. Most programs provide dentists with information that can be successfully integrated into dental practice.

### **[www.journalbytes.com/](http://www.journalbytes.com/)**

Journalbytes is an online journal review service and continuing education resource that provides access to vital information important in professional practice. The site provides access to a database of journal article reviews, practical commentary from experts, electronic tracking of the tables of contents of selected journals, and access to a library of full-text articles for continuing education.

A number of medical and dental specialties is covered in Journalbytes, including Cosmetic Dentistry, Orthodontics, Neurology, Pathology, Pediatric Dentistry, Pediatrics, Radiology, General Surgery, Integrative Medicine, Internal Medicine, Medical Errors, and Bioterrorism.

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# PHARMACY

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## [www.arcmesa.org/](http://www.arcmesa.org/)

ArcMesa Educators is a continuing education provider for pharmacists, physicians, physician assistants, dentists, dental hygienists, nurses, dietitians, diabetes educators, and radiology technologists.

The site delivers CE courses online, with comprehensive online CME/CE programming that delivers course materials and online testing with immediate grading and certification. The site also provides live online programs for up to 50 participants with instant archival of each program for review by those attending the initial program as well as by others unable to attend the live program.

## [www.campbell.edu/pharmacy/ContEd/body.htm](http://www.campbell.edu/pharmacy/ContEd/body.htm)

Guidelines and useful educational tools for Continuing Pharmacy Education are available to users from this web site.

## [www.cmeonhiv.com](http://www.cmeonhiv.com)

The Internet site CME on HIV is an information portal on HIV disease and treatment. It offers Continuing Medical Education (CME), specializing in online presentations (slides with voice over) given by experts in the area of HIV/AIDS. It aims to help keep the practitioner up to date in the clinical and therapeutic domains of HIV infection.

## [www.cpb.uokhsc.edu/ce/derm/html/index.html](http://www.cpb.uokhsc.edu/ce/derm/html/index.html)

The University of Oklahoma College of Pharmacy offers *Dermatologic Issues for Practicing Pharmacists* through this web site. This continuing education program is intended for practicing pharmacists and contains live and web-based education.

## [www.cpha.com/about/online.php](http://www.cpha.com/about/online.php)

The California Pharmacists Association maintains this web site which provides online education to pharmacists and pharmacy technicians. The user can get access to convenient education and training tools online and a complete catalog of ACPE-approved articles.

## [www.gactr.uga.edu/is/kinetics/index.html](http://www.gactr.uga.edu/is/kinetics/index.html)

University of Georgia, Center for Continuing Education Offers the *Concepts in Clinical Pharmacokinetics* program, in collaboration with the American Society of Health System Pharmacists (ASHP).

## <http://hiv.buffalo.edu/html/homestudy.html>

State University of New York at Buffalo Department of Pharmacy Practice, Office of Postgraduate Education offers a variety of continuing education courses delivered in print, seminars and online workshops at this web site.

## [www.medicale.com/](http://www.medicale.com/)

MediCom Worldwide, Inc. designs continuing education media to meet the professional development needs of pharmacists as well as physicians. Programs are developed on health topics of current interest.

## [www.omni.ac.uk/browse/mesh/detail/](http://www.omni.ac.uk/browse/mesh/detail/)

The Centre for Pharmacy Postgraduate Education (CPPE) provides continuing education activities undertaken by the CPPE that cover both clinical and professional subjects, elearning and distance learning continuing education programs, and the CPPE workshops.

The Scottish Centre for Post Qualification Pharmaceutical Education (SCPPE) offers continuing pharmaceutical education in Scotland, and provides education and training programs, which include face-to-face courses, distance learning, video conferencing, and open learning opportunities.

The Welsh Centre for Postgraduate Pharmaceutical Education (WCPPE) provides continuing education and continuing professional development opportunities for pharmacists. This web site gives details of the continuing education activities undertaken by WCPPE, elearning and distance learning continuing education programs, flexible and part-time learning programs, and access to learning resources.

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**[www.ouparmacy.com/ce/online/](http://www.ouparmacy.com/ce/online/)**

Professional seminars and other programs to assist pharmacists in maintaining their professional competencies are accessible through this web site.

**[www.pha.unc.edu/pharmacy/continuing/](http://www.pha.unc.edu/pharmacy/continuing/)**

The School of Pharmacy of the University of North Carolina at Chapel Hill sponsors and co-sponsors national and international seminars, workshops, certificate programs, and residency programs to advance pharmaceutical care knowledge and skills. Programs offered by the school may be accessed through this web site.

**[www.pharmacy.pitt.edu/programs/ce/](http://www.pharmacy.pitt.edu/programs/ce/)**

Programs offered by the University of Pittsburgh School of Pharmacy are available through this web site. The home study programs provide pharmacotherapy disease management tools intended to facilitate the continuing education programs, and encourage professional development through curriculum-based specialist programs.

**[www.pharmacy.purdue.edu/](http://www.pharmacy.purdue.edu/)**

This web site offers a course that provides an opportunity to learn more about the Internet and how it may be used in pharmacy education. The course is available totally online.

**[www.pharmacy.umn.edu/outreach/](http://www.pharmacy.umn.edu/outreach/)**

Courses on nutrition support and nutrition assessment, clinical toxicology, and medication-related poison emergencies provided by the Office of Educational Development University of Minnesota College of Pharmacy are available through this site.

**[www.pharmj.com/CPD/PJArticles.html](http://www.pharmj.com/CPD/PJArticles.html)**

The Pharmaceutical Journal publishes continuing education articles on a variety of topics. The materials may be accessed through this web site.

**[www.rxed.org/drugtopics/](http://www.rxed.org/drugtopics/)**

DrugTopics.com, in collaboration with The University of Mississippi, makes available online continuing education (CE) and electronic submission and grading of CE Credit Requests.

**[www.rxed.org/umce/](http://www.rxed.org/umce/)**

This web site is maintained by the Bureau of Pharmaceutical Services of the University of Mississippi School. It allows for downloading of continuing education (CE) lessons with electronic submission and grading.

**[www.rxschool.com/](http://www.rxschool.com/)**

This web site is a source for ACPE accredited pharmacy continuing education and review courses for pharmacists and pharmacy technicians.

**[www.rxtechschool.com/](http://www.rxtechschool.com/)**

This web site gives access to online pharmacy technician certification training utilizing software for distance learning and tools and techniques for passing the PTCB exam. PharmCredits.com articles are accredited by the American Council on Pharmaceutical Education for continuing pharmaceutical education.

**[www.temple.edu/pharmacy](http://www.temple.edu/pharmacy)**

Online courses of Temple University School of Pharmacy are accessible at this web site. They include Understanding and Managing Obesity, Current Strategies for the Management of Patients with Heart Failure, and Home Test Kits.

**[www.utexas.edu/pharmacy/ce/description.html](http://www.utexas.edu/pharmacy/ce/description.html)**

This web site gives access to a wide variety of ACPE-accredited continuing education (CE) programs provided by the University of Texas College of Pharmacy.

**[www.worldwidelearn.com/continuing-education/pharmacy-cme.htm](http://www.worldwidelearn.com/continuing-education/pharmacy-cme.htm)**

A number of websites for continuing education in Pharmacy is accessible from this web site. Courses offered include: Acne - A Common Skin Condition, Adolescent and Adult Contraception, An Introduction to Forensic Pharmacy, Asthma Overview for Pharmacy Technicians, Childhood Vaccinations, Current Therapy for HIV/AIDS, Depression, Drug Resistant Bacteria, Gastroesophageal Reflux Disease: More than Just Heartburn, Hormone Replacement Therapy, New Drug Update, Popular Herbal Remedies: Examining their Effectiveness and Potential for Adverse Reactions.

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# NURSING

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## **[www.arcmesa.org/](http://www.arcmesa.org/)**

ArcMesa Educators is a continuing education provider for physicians, physician assistants, dentists, dental hygienists, nurses, pharmacists, dietitians, diabetes educators, and radiology technologists.

The web site delivers continuing education courses online. Online testing with immediate grading and certification is available. The site also provides live online programs in which the content dealt with could be archived for later review. The materials may be read online or downloaded as pdf files for use later.

## **[www.mdchoice.com](http://www.mdchoice.com)**

MDChoice.com is a site that contains clinical images x-rays, CT scans etc. Previously the EMBBS. MDchoice.com is a useful Medicine and Health Portal and provides free access to the online, physician-reviewed information. A series of articles in emergency medicine is available. Interactive education is presented in the form of PhotoRounds, ECG Rounds, CyberPatient Simulation, Radiology Rounds and Pediatric Radiology.

## **[www.bnn-online.co.uk/](http://www.bnn-online.co.uk/)**

BNN - British Nursing News Online  
This site offers nursing news from the UK and around the world. This site is fully searchable and updated daily.

## **[www.internurse.com/](http://www.internurse.com/)**

The internurse.com library has an archive of over 9000 articles. The site offers two levels of searches: basic and advanced. For the reader who knows what exactly he or she is looking for, the table of contents of the journal is good starting point. Searching can be narrowed by selecting a section from the drop-down menu.

## **[www.emedine.com/](http://www.emedine.com/)**

Emergency Medicine is a useful resource of online text dealing with major medical emergencies.

## **[www.resurg.org.uk](http://www.resurg.org.uk)**

Resuscitation Council (UK)

The latest guidelines for resuscitation in the UK May 1999 update for Cardiac resuscitation and July 1999 for treatment of anaphylactic shock are available at this site.

## **[www.tagish.org.uk/](http://www.tagish.org.uk/)**

Tagish is a site that offers a directory of trusts and health authorities details, including addresses and phone numbers. A number of links to other sites is available.

## **[www.cb-training.com/](http://www.cb-training.com/)**

Charles Bloe Training is an organization that provides a range of clinical updates for allied health professionals, nurses, doctors and other healthcare professionals. The courses are presented by a team of highly qualified nurses, all of whom maintain clinical posts and are leading experts in their fields. The CME offered has been awarded academic accreditation via Glasgow Caledonian University.

## **[www.mentalhealth.com](http://www.mentalhealth.com)**

Internet Mental Health

This is a Canadian-based mental health website. It contains a large number of links to other mental health sites .

## **[www.ncbi.nlm.nih.gov/entrez](http://www.ncbi.nlm.nih.gov/entrez)**

PubMed

This site offers free access to the Medline plus many other databases via the National Library of Medicine (NLM).

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## HEALTH PROFESSIONS

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### **[www.abqaurp.org/course.asp](http://www.abqaurp.org/course.asp)**

This web site hosted by the American Board of Quality Assurance and Utilization Review Physicians offers instruction in the format of text-and-graphics. The content is of general interest.

The courses presented deal with medical error prevention and patient safety, a review of the Core Body of Knowledge, preventing, detecting and addressing fraud and abuse, bioterrorism and biological weapons of mass destruction.

### **[www.conference-cast.com](http://www.conference-cast.com)**

Conference.CAST™ is a web site technology that distributes audio, video, and other presentation materials over the Internet. Organizations involved in planning and conducting training programs, educational events, seminars, and lectures will be able to reach users in different regions using this facility. As the materials can be archived, the period over which the subject content may be used gets extended.

Three levels of distributing the materials are available. The basic format allows traditional broadcasts to be converted to Internet-based formats and optimized for different connection speeds. The audio-slide format allows the visitors to the web site to see the presentation materials as well listen to the presentation. The third format provides the opportunity for reaching the audience through video format.

### **[www.ed2go.com/cme/](http://www.ed2go.com/cme/)**

Instructor-facilitated Online Courses are offered by the University of Wisconsin Continuing Medical Education at this site. The programs cover many non-medical topics that can be useful in improving the physician's practice. The topic areas on which courses are available are the Internet, web page design, web graphics and media, web programming, basic computer literacy, computer applications, desk top publishing and imaging, computer troubleshooting and networking, computer programming and database management, digital photography and digital video, languages, writing and publishing, grant writing, and personal and career development.

### **[www.eHealthCoach.com](http://www.eHealthCoach.com)**

This web site gives access to articles about using the Internet for medical practice. It also provides links to resources on information technology in health care.

### **[www.eqmr.com](http://www.eqmr.com)**

The web site offers services to Hospital Administrators and other health care professionals in areas in which they should be competent to ensure successful practice. The organization focuses on clinical quality with financially sound approaches. The web site also provides links to other websites that provide information on child health, publications, data and statistics, and laws and regulations. In the area of traveler's health, there are sections on general health information, data and statistics, training and employment, and funding. Links are also available to societies dealing with quality assurance and utilization review.

### **[www.med.unc.edu/epic/](http://www.med.unc.edu/epic/)**

The Expert Preceptor Interactive Curriculum (EPIC) website provides interactive educational material that will be of interest to physicians in the specialties of Family Medicine, Internal Medicine, Pediatrics and Gynecology.

The programs deal with faculty development in clinical teaching for community practitioners. The course is presented as a number of modules that are interrelated and interactive. The participants are required to respond to questions as they continue on with the course.

### **[www.skolar.com/](http://www.skolar.com/)**

This program deals with questions that arise in the course of a physician's practice. The user will be able to acquire relevant knowledge by answering questions and also will be able to earn CME credits.

### **[www.topicsinmedicine.pwpl.com/](http://www.topicsinmedicine.pwpl.com/)**

Topics In Medicine is a single source for the development, production, promotion and distribution of continuing medical education (CME) materials. Each original program is live and interactive, and is

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broadcast to selected medical institutions, as well as via the Internet and on CD-ROM and videotape.

The CME programs are accredited by the Accreditation Council for Continuing Medical Education (ACCME) as continuing medical education for physicians and by the Accreditation Council on Pharmacy Education for continuing pharmacy education.

**[www.tm.cme.edu/](http://www.tm.cme.edu/)**

This program deals with medical benefits of the Transcendental Meditation (TM) technique and the research on its health applications. There is emphasis on cardiovascular disease, its risk factors, stress, hypertension, and overall health.

**[www.usfcme.com](http://www.usfcme.com)**

This course deals with some of the basics of business administration that will prove useful to the physician. The topic areas dealt with are: Marketing

and the Management of Service Quality, Managing People and Developing Strategies, The Business Environment of Health Care, and Data Driven Management.

**[www.wvrhep.org/informatics](http://www.wvrhep.org/informatics)**

This online Health Care Informatics course is designed for the development of skills in using and evaluating Internet-based electronic communication resources, using and evaluating clinical decision support systems and understanding broad issues surrounding technological advances in health care. Some of the topics covered are: Searching the World Wide Web, Electronic Mail Discussion Lists and the Internet.

The program will be useful to the junior doctors as well as to intermediate-level physicians.

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# World Wide Web, Internet and eLearning

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Two technologies that allow computer-based documents to be shared by many users are Hypertext and Internet.

Most mediums of communication with which we are familiar are designed in a linear format. Books, magazines, television, etc. are all linear. In a book or a magazine that is printed, the information is linear in direction: one page comes after another. In television, there is a time sequence. In a hypertext document the user may visit any page in any order. He or she may start at any point in the document and may move in any direction using the path of choice.

Hypertext allows documents to be published in a nonlinear format. Hypertext is a non-sequential (non-linear) environment in which the information is arranged in the form of a network.

The Internet is a computer network of networks. Computers linked together in this manner can communicate with each other using different software. While hypertext allows one document to be linked to another, the Internet helps in transmitting the documents.

Unlike the traditional forms of communication that we often use in our day to day communications, the documents in the World Wide Web are published in hypertext. Because they are non-linear, the reader can move between the documents instantly.

## Development of the World Wide Web and the Internet

The wide use of computers and the Internet today, especially in the affluent countries, tends to hide the fact the underlying concepts and the associated technology are only just over a decade old. It was in 1990 that Berners-Lee, in his search for a simple system to share his information with his co-workers, wrote Hypertext Transfer Protocol (HTTP). HTTP is the language that computers use to transfer hypertext documents over the Internet. He also developed the concepts of web addresses for documents. A web address was called a Universal Resource Identifier (URI) initially. The term has since been changed to URL—Uniform Resource Locator.

Hypertext documents in the Internet had to be retrieved and viewed by the user using a browser. Berners-Lee wrote a program, which he called the "WorldWideWeb" for this purpose. For formatting the Hypertext pages, he wrote the Hypertext Markup Language (HTML). In 1991, he made the WorldWideWeb browser and web server software available on the Internet.

Berners-Lee designed his WorldWideWeb browser on a NeXT computer. Soon browsers that could be used on Mac, PC, and Unix computers were introduced by other workers.

Berners-Lee was additionally concerned about the importance of maintaining the open nature of the Web. The moves he initiated to achieve consensus on how the Web should operate led to the founding of the World Wide Web Consortium. The primary aim of this forum is standardizing and improving the manner in which the World Wide Web and its associated features are used.

A web browser that had got widely accepted by the users was *NCSA Mosaic*. *Netscape* was another popular web browser. Among the browsers available today, *Microsoft Internet Explorer* occupies the foremost position as the most widely used.

### Intranet

A term that often comes up when talking about computer networks is intranet. An intranet is a network that belongs to an organization or institution and which has been designed for the sharing of information. An intranet works similar to the internet but only authorized personnel are allowed to gain access to the information. To ensure that unauthorized individuals do not enter the system the intranet has a security mechanism called a *firewall* that surrounds the network.

### eLearning

In a very broad sense, eLearning may be described as using information and communication technologies (ICTs) in learning. In eLearning the learning materials are delivered to the learner using electronic media such as computers, Internet, Intranet, CD or DVD.

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eLearning may also be viewed as a form of distance learning. The learner is in a position to access materials that are supplied via the web or CD or some other storage medium. The instructors, too, have the opportunity to interact with the learners using email and other communication formats.

One of the important features of eLearning is that the learner need not be anchored to a fixed location of learning with its desktop computer. The laptop and other mobile devices, which during the recent past have increased in capacity but have shrunk in size and weight, have increased the flexibility open to the learner.

The advances in technology in no way have diminished the role of the instructor. On the contrary,

the teacher has to play a more important role than in the traditional learning setting, defining the lesson objectives, identifying the subject content that goes with them, selecting the interactions to involve the learner, and designing mechanisms for assessment. In the hands of the effective teacher, eLearning could either serve as the primary mode of delivering the learning materials or supplement learning that is planned using conventional approaches. With appropriate use, eLearning may promote learner-centered learning, integrate learning with the routine needs of the professional role, and assist collaboration with colleagues and experts, both local as well as based at distant settings.

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# Glossary

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Given below is a glossary of terms useful in continuing education and continuing professional development as well as in related aspects of medical education. They have been selected and defined based on the specific applications in the MPC Program and the CME Center of KIMS.

## **Adult education**

The education of adults involves all forms of education for those above a specified age that identifies adulthood. The term adult education is restricted to what can best be learned as adults and covers all forms of education that treat the student participants as adults—capable, experienced, responsible, mature and balanced people.

## **Accreditation**

Accreditation is the process by which governmental, non-governmental or voluntary associations grant recognition to educational programs that meet specified criteria. The CME Center uses accreditation to ensure that CME/CPD activities meet the accepted standards of education and scientific merit.

## **Affective domain**

The attitudes and values that health professionals are expected to possess are grouped under the affective domain. They may be influenced by many factors, one of which is knowledge in the related topics.

## **Assessment**

Assessment involves determining whether a previously-listed ability has been mastered by the learner, and quantifying it by giving a numerical score or grading on a scale.

## **Audit**

The process of reviewing the performance of practitioners with the aim of identifying deficiencies so that appropriate remedies could be introduced.

## **Certification**

The process by which a trainee is certified that he or she is ready to move to a higher phase of training or could be granted a license to practice.

## **Checklist**

An instrument of assessment that employs a list of

previously-agreed tasks or abilities, to be checked, if present on observation.

## **Clinical competence**

Possession of relevant knowledge, skills, and attitudes and values pertaining to clinical, technical and interpersonal aspects of patient care so that a practitioner could be considered to be adequately equipped to perform at the expected level.

## **CME/CPD authority**

An institution or designated body that oversees the organization of accredited CME/CPD activities within a CME/CPD scheme.

## **CME/CPD activity**

An educational activity (e.g. conference, seminar, workshop, symposium, lecture series, practical/clinical session) that is planned and conducted for the purpose of achieving pre-specified objectives that are related to maintenance of professional competence.

## **CME/CPD calendar**

A listing of CME/CPD activities that are being planned by CME/CPD organizers for accreditation by the CME Center.

## **CME/CPD categories**

The grouping of CME activities used by CME authorities for administering the CME schemes. The KIMS program has limited the categories to two, to make it easily understandable to the practitioners, while covering both structured as well as self-learning educational opportunities.

## **CME Center**

The division at KIMS that deals with the routine administration of the CME/CPD scheme in Kuwait.

## **CME/CPD credits**

A yardstick used by CME/CPD authorities to measure and quantify CME/CPD involvement of the

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health professionals. It is imprecise as a measuring tool, and may not allow performance in some areas to be readily interpreted through it.

### **Certificate of Completion of CME/CPD**

Practitioners who acquire a specified minimum total of credits during the five-year cycle receive a Certificate of Completion of CME/CPD from KIMS. The certificate remains valid for a five-year cycle from the date of issue.

### **CME/CPD coordinator**

A content expert appointed by an institution for local coordination of CME/CPD activities within the institution.

### **CME links**

Websites that offer lessons or give information on CME/CPD that can be accessed from other sites or through web addresses.

### **CME/CPD officer**

A content specialist appointed by KIMS for serving as a link between the practitioners in the specialty and the CME Center. Practitioners should contact the respective CME/CPD officers for any clarifications about the MPC Program.

### **CME/CPD organizer**

An appropriate content specialist functions as the CME/CPD organizer on behalf of the CME/CPD Provider, and takes immediate responsibility for the different aspects of the CME/CPD activity.

### **CME/CPD Provider**

An institution or organizations that possesses expertise within it for conducting CME/CPD activities at a national level, which becomes eligible for recognition as a CME/CPD Provider.

### **CME/CPD status certificate**

Any practitioner who needs a certificate of the CME/CPD status to satisfy administrative requirements, or is terminating service in Kuwait is eligible to receive a Certificate of the CME/CPD status.

### **Cognitive domain**

Learning that is related to knowledge falls within the cognitive domain. It can be further divided into a hierarchy, with recall/recognition at the lowest level,

data interpretation next, and problem-solving at the highest level.

### **Competence**

The abilities gained as a result of an effective learning experience; knowledge is only one group of the competencies expected.

### **Computer-based learning**

Learning systems that use computers to convey the subject matter of the lesson. A teacher is essential for defining the learning objectives, identifying the related content and planning the assessment.

### **Computer literacy**

The ability to use a computer effectively and efficiently in performing specific tasks. Common computer literacy skills include word processing, using spreadsheets, doing presentation graphics and manipulation of databases.

### **Computer peripherals**

The various items of equipment such as scanners, pointing devices, printers, monitors or projectors that allow data to be input into a computer or for information to be displayed after being processed by a computer.

### **Continuing medical education (CME)**

Educational activities that physicians undertake after they had completed basic undergraduate education and any specified postgraduate training. The subject content dealt with in CME activities has expanded from purely medical subjects to include topics in many non-medical fields.

### **Continuing professional development (CPD)**

Continuing Professional Development aims to cover the development of a wider range of professional skills than learning in medical subjects. It also allows the CME/CPD activities undertaken by many categories of health professionals to be included under it.

### **Credit validation**

Maintenance of relevant records by practitioners registered in the MPC Program and the organizers of CME/CPD activities, and submitting them to the CME center when requested during program review.

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**Curriculum**

A plan that identifies goals to be achieved, delineates the related learning objectives and the subject content, and lists the methods of teaching and evaluation to be used to ensure that the pre-specified targets have been reached. The concept of curriculum goes beyond a listing of topics to be dealt with in a course or program.

**Database**

An organized collection of related information about employees, patients, diseases, equipment etc. so that it can be rearranged and sorted, and any item retrieved easily.

**Data interpretation**

The process of making meaning of novel information – from data that the individual has not been exposed to in the past.

**Distance learning**

A system of learning in which the tutor and the learner are not present in the same setting at the same time. Print, audio, photographic or video media, or computers are used for conveying the lesson material to the learner.

**Documentation**

Maintenance of relevant records by CME/CPD participants so that they could be used to support credit claims and to monitor program administration.

**Domain**

One of the three divisions – cognitive, affective and psychomotor - to which learning is classified for academic purposes and which identify the scope of the competencies.

**Download**

Gaining access to and obtaining the data available in the Internet to be printed, transmitted to other users, or included in own documents.

**Effectiveness**

The degree to which a pre-specified set of goals can be achieved or targets reached.

**Efficiency**

The extent to which resources are spent in reaching a pre-specified set of goals.

**eLearning**

eLearning is the use of multimedia technologies and the Internet to improve the quality of learning through access to resources as well as remote exchanges and collaboration.

**Entry level**

Also called pre-requisites, the entry level lists the abilities that a trainee should possess before being considered as ready to be enrolled in a training program.

**Essay question**

A format of question where the candidate has the freedom to select the subject content and the style of presentation considered appropriate.

**Evaluation**

The process of judging the results obtained on assessment against some external criterion that has been previously set. Evaluation is undertaken in relation to structure, process and outcome.

**Faculty**

The Boards of Study of KIMS that are responsible for postgraduate studies in the various medical specialties. Other common meanings of the term are an institution, as Faculty of Medicine, that offers undergraduate training for a university degree, and the teaching staff of an institution.

**Feasibility**

The degree to which a given program plan or scheme could be put into practice considering the practical constraints.

**Feedback**

Providing specific information to the learner or the instructor on the strengths and weaknesses as regards the tasks undertaken so that the subsequent performances could be improved.

**Formative evaluation**

Formative evaluation is purely for feedback, so that the trainee could improve in weak areas, before it is too late. See Summative evaluation.

**Global rating**

Assigning a grade or a rating to the achievement of the learner, based on overall assessment, as

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opposed to the observation of specific skills, tasks or behaviors.

**Goal**

A general aim or overall expectation from a course of study or training program. Goals enable the course planners to derive the general and specific objectives that are needed for instruction and assessment.

**Graduate medical education**

See postgraduate education.

**Health professionals**

Health personnel who have undergone a specified period of training in a university and are entrusted with the responsibility of providing an accepted level of health care. The concept is often widened to include other groups who have received training but not necessarily at undergraduate level.

**Homepage**

A webpage developed and maintained by an institution, agency or an individual, which highlights its essential features or facilities available.

**Horizontal integration**

Subjects that are taught as distinct and separate units during one phase in the medical curriculum are presented so that the interrelations and links are emphasized.

**Indicator**

A criterion or observable behavior that can be used to conclude that a learner or practitioner possesses a specific competence or attribute.

**Integrated teaching**

A system of teaching in which subjects or courses that were traditionally taught as independent units are presented as a unified whole. In integrated teaching the learning objectives get integrated.

**Internship training**

The period during which new graduates of medical schools undergo supervised training before they are granted license for independent practice. Also called PRHO training.

**Instructor**

An individual who is responsible for presenting learning sessions.

**Internet**

A computer network of networks. Computers linked in the internet can communicate with each other using different software. See World Wide Web

**Intranet**

An intranet is a network for sharing of information within an organization or institution. Only authorized personnel are allowed to gain access to the information (See also page 46).

**Jargon**

The terms and phrases specific to a particular discipline or profession, which are meaningful to its members and facilitate communication.

**KIMS**

The Kuwait Institute for Medical Specialization, which is the administrative authority in Kuwait that is responsible for internship training, postgraduate medical education, CME/CPD, and research in the medical disciplines in the Ministry of Health.

**KIMS Faculty**

The Boards of Study and Scientific Committees that oversee the educational activities in the different specialties under KIMS.

**Knowledge**

The area of learning that involves acquisition of facts, data, information, ideas or principles. Though related, knowledge is considered as distinct from attitudes and values, and the performance of skills.

**Learner-centered education**

The process of learning in which the learner primarily determines what is to be learned and how it is undertaken, with the teacher setting the overall goals and serving as a guide or facilitator, but not taking the role of a repository of knowledge.

**Learning objective**

A learning objective is a description of an observable change in the performance that results from a learning activity. Therefore, a learning objective is

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not a theme to be discussed or the way a topic is to be dealt with during a learning session.

**Lecture**

A method of instruction where a subject matter expert presents information, usually to a large audience and with no opportunity available for interaction by the audience.

**Licensure**

The process of an authorized agency granting permission to engage in practice or use a title to those who have satisfied pre-specified criteria.

**Lifelong learning**

Learning on a continuing basis that professionals undertake to keep up with the developments in their disciplines, and which forms the essential basis of CME/CPD.

**Logbook**

A detailed record maintained by a trainee or a practitioner of the learning undertaken or the activities performed, to be reviewed at a later date for formal or informal assessment.

**Log-in**

The process of signing-in to start a session for using a computer system or a network, in some cases after authority has been granted.

**Maintenance of professional competence (MPC)**

The process of lifelong learning undertaken by health professionals to ensure that they keep abreast of the developments in their specialties and in other areas that affect their practices.

**Medical education**

The process of providing learning opportunities for students to become competent medical practitioners. Three phases that can be identified in it are undergraduate, postgraduate and continuing.

**Medical educator**

A professional who is concerned with the educational processes that are relevant in curriculum planning, teaching, assessment and evaluation in medical education.

**Medical informatics**

The scientific field that deals with storage, retrieval and optimal use of information in medicine, with computers playing an integral part in the process.

**Medical school**

An institution, usually affiliated to a university, that provides formal training to students to become medical practitioners. Some other common terms used are Medical College, Faculty of Medicine, College of Medicine and Health Science, and Medical Institute.

**Modified essay question**

The format of essay-type question that limits the freedom that is usually available to the candidate who answers the standard essay-type question. The choice of content and style of answer is restricted by varying degrees of structuring.

**MPC Program**

The CME scheme administered by the CME Center of KIMS for the maintenance of professional competence; formerly called the CME Program.

**Multiple choice question (MCQ)**

A format of question in which a set of choices is offered from which the candidate selects the correct answer(s).

**Needs assessment**

The process of determining in advance what prospective participants of CME/CPD activities need to learn, so that the needs identified may be used in selecting the subject content and the appropriate method of teaching.

**Objective**

See learning objective

**Objectivity**

The property of any tool of measurement that allows different examiners to agree on the score or grade assigned.

**Objective questions**

Questions (test items) written in a format that ensures that different examiners mark (score) the candidate's responses in the same manner.

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**Objective Structured Clinical Examination (OSCE)**

A system of standardizing the tasks presented to examination candidates so that there is uniformity in the problems presented to all candidates in one session. The tasks may be components of clinical performances, laboratory procedures, communication skills, cognitive tests etc., and the candidates move from one station to another.

**Online**

Communication between a computer user and an individual, an agency or other institution using the Internet.

**Online learning**

Online learning deals with learning that uses learning materials supplied via the electronic media. The primary media used are computers, internet and the intranet.

**Outcome**

The result of a learning experience, described as a change in the performance of the learner; also learning objective.

**Peer**

Fellow learner or fellow practitioner.

**Peer review**

Review of an individual's performances by fellow learners or fellow practitioners through observation or scrutiny of documents and records.

**Perceptual motor skills**

See procedural skills

**Performance**

What a practitioner does in the real setting as opposed to what he or she is capable of doing as a result of the learning.

**Performance-based assessment**

A system of assessment in which the candidate is directly observed when performing in the real setting instead of asking him or her to demonstrate the competencies in an examination.

**Performance review**

Scrutinizing the performances of a practitioner

through direct observation or by study of documentation maintained.

**Portfolio**

A written record dealing with the performances and achievements of a trainee or a practitioner, which could be used subsequently as evidence of involvement of educational activities or as the basis for assessment.

**Postgraduate education**

Also called graduate education. Educational activities that health professionals engage in after undergraduate education and internship training (where applicable), and are based on a prescribed course of training or which involve passing specified examinations and certification.

**Practicality**

See feasibility

**Practicals**

Learning or assessment settings in which the individual is required to operate equipment or perform operative procedures as the primary feature of the activity.

**Pre-requisites**

See entry level

**PRHO**

See internship training

**Problem-based learning**

Learning that is undertaken by exploring clinical problems and other health care problems as the means for defining learning objectives and identifying subject content.

**Problem-solving**

A mental process that involves making judgments or evaluation decisions based on novel information that is presented to the individual. The activity ceases to be problem-solving if the information has been encountered before, or the task has been practiced.

**Procedural skills**

Abilities that require the learner or the practitioner to perform manual (as opposed to mental) skills such as doing operative procedures. Many laboratory

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tasks would not fall within this category (except for the ability to operate the equipment) because the stimulus presented to the learner is often visual and the response of interpretation is a mental skill.

### **Psychomotor domain**

The psychomotor domain is concerned with performance of procedural skills, which involve doing manual procedures. Though the relevant knowledge is essential, knowledge alone does not guarantee that the skill has been mastered. Also referred to as perceptual motor skills.

### **Rating scale**

An instrument of evaluation, often with five points (e.g. Likert scale), which allows the performance to be graded from low to high (as opposed to noting whether present or absent).

### **Re-certification**

Re-certification is a process by which a professional body testifies intermittently to the competence of each of its members, either with or without a period of formal re-training.

### **Reliability**

Reliability describes the degree to which the result of a measurement would be unchanged if the act of measurement could be repeated.

### **Resource person**

The person responsible for planning or presenting a learning activity, be it a lecture, a demonstration, a practical, a clinical, a small group session, a discussion or other educational event.

### **Reinforce**

Confirm the desirability of observed behaviors or performances by an appropriate reward.

### **Small group teaching**

Instruction conducted with the size of the learning group not exceeding 12 to 15, one of the main aims being to promote interaction among the group members. The limit could be exceeded by varying the presentation methods.

### **Subject content**

The list of topics and the related subject matter that is to be dealt with in a lesson or program.

### **Summative evaluation**

Assessment is carried out at the end of course unit or a program, and what has been learned is summed up. This step is essential before certification. See Formative evaluation.

### **Technology-based training**

Technology-based training relies on technological resources including computer, TV, audio and video to present the learning materials in settings outside the traditional classroom.

### **Validity**

The issue of whether a test instrument is being used to assess the abilities that it has been designed to measure.

### **Vertical integration**

Courses taught in the different phases in the medical course are presented with varying degrees of integration, e.g. by the exposure to clinical subjects early in the curriculum or the continuation of basic sciences in its final phase.

### **Web-based learning**

Web-based learning is essentially the same as online learning: the learning materials are delivered to the learner via computers, the internet or an intranet.

### **Web browser**

A program that allows a user to gain access to any of the resources available in the Internet.

### **Webpage**

A single document on the World Wide Web with its own web address (URL).

### **Website**

A single page or collection of pages about a given topic published on the World Wide Web.

### **World Wide Web**

A system that has been created as a way to easily access cross-referenced documents that exist on the Internet.

