

# **Topical Index of Web Based Resources for Critical Care Nursing Educ**

Acid Base

Anaesthesia Education Website Acid Base Physiology http://www.anaesthesiamcq.com/AcidBaseBook/ABindex.php Provides a variety of acid base tutorials

Acid-Base.org http://www.acidbase.org/ Reviews acid base physiology

# Acute Respiratory Distress Syndrome (ARDS)

# **ARDS Support Center**

http://www.ards.org

Provides information, education, and support resources for patients, survivors, family members

# Emedicine by WebMD

Adult Respiratory Distress Syndrome- contains information of differential diagnoses, treatment and medication. http://emedicine.medscape.com/article/808260-overview

# **Medscape Today**

Lung Recruitment in ARDS: Physiologic concepts and practical strategies. Article discusses strategies such as prone positioning for ARDS treatment. www.medscape.com/viewarticle/466521

Needs password but free registration

# Medscape

Sepsis associated shock, management of ARDS, and mechanical ventilatory strategies. http://www.medscape.com/viewarticle/452476\_4

# Needs password but free registration

#### Anatomy

## **Cardiac Anatomy**

Anatomic overview of heart structure, electrical system, and explanation of basic terms of heart function such as preload, afterload, etc. Skills assessment quiz. <u>http://www.skillstat.com/Flash/HeartScape531.html</u>

#### **Dartmouth Medical School**

Human Anatomy Learning Modules http://www.dartmouth.edu/~anatomy/index.html

#### **University of Michigan Medical School**

Medical Gross Anatomy Learning Module. Contains modules on all systems including test questions with each module. <u>http://anatomy.med.umich.edu/courseinfo/module\_index.html</u>

# Anesthesia

#### **World Federation of Societies of Anaesthesiologists**

Site offers web-based tutorials of the week, access to Update in Anaesthesia manuscripts and emergency algorithms http://totw.anaesthesiologists.org

## University of Florida's Virtual Anesthesia Machine

Site contains free simulations on topics including alveolar gas equation, airway devices for the difficult airway, and coronary circulation models. Many of the simulations are interactive.

http://vam.anest.ufl.edu/

## **Critical Care Medicine Tutorials**

Tutorials on anesthesia, critical care medicine, pain management, regional anesthesia, and internal medicine. (Beginner and Advanced) http://www.ccmtutorials.com/

Arrhythmia and EKG Interpretation

#### **Cardiac Rhythm Simulator**

SkillsStat Self Testing and Assessment. EKG rhythm review with EKG rhythm identification test for assessment of skills. http://www.skillstat.com/Flash/ECGSim531.html

#### **Cardiac Case Studies**

Over 40 cardiac cases that contain links that access 12 lead ECG's and a cath film. http://sprojects.mmi.mcgill.ca/heart/ecghome.html

#### **Cardiac Electrocardiograms**

ECG library that contains rhythm strips with interpretations <a href="http://www.ecglibrary.com/">http://www.ecglibrary.com/</a>

**ECG Learning Center Tutorial – University of Utah**. Contains both beginning and advanced information on ECG interpretation. <u>http://library.med.utah.edu/kw/ecg/</u>

**12 Lead ECG Interpretation.** Includes quizzes, flashcards to use for further study and practice ECG interpretation. www.12leadecg.com/intro/

**University of Wisconsin.** Site contains educational video on 12-lead ECG interpretation. <u>http://www.fammed.wisc.edu/our-department/media/614/ecg-course-1</u>

# Arterial Blood Gas

Arterial Blood Gas Interpretation. Self-learning module for interpretation of arterial blood gases. <u>http://orlandohealth.com/pdf%20folder/Inter%20of%20Arterial%20Blood%20Gas</u>.<u>pdf</u>

**ABG Self-Learning Module** Provides an overview of ABG interpretation. Case studies are included at the end for further evaluation of skills. http://www.scribd.com/doc/9329596/abg-interpretation

Bioterrorism/Disaster Preparedness

#### **World Health Organization**

http://www.who.int/topics/disasters/en/

#### **Society of Critical Care Medicine Disaster Resources**

http://www.sccm.org/Public\_Health\_and\_Policy/Disaster\_Resources/Pages/default.aspx

## **Centers for Disease Control and Prevention**

Home page for emergency preparedness and response. Gives links for bioterrorism, chemical emergencies, radiation emergencies, mass casualties, natural disasters and severe weather, and recent outbreaks and incidents. http://www.bt.cdc.gov/

#### **Federal Emergency Medicine Association**

Provides a number of interactive web courses related to disaster management. http://training.fema.gov/

Cardiovascular

Advanced Cardiac Life Support SkillsStat Self Testing and Assessment of ACLS algorithms and medications. http://www.skillstat.com/Flash/ACLS\_Stat531.html

## **Cardiac Auscultation**

Gives audible heart and lung sounds to help increase ausculatation skills. <u>http://www.wilkes.med.ucla.edu/intro.html</u>

**Cardiologysite.com**. Site includes instructional movies, 3-D animation of the heart, interactive heart sounds and murmurs, echocardiograms, introduction to coronary angioplasty.

http://www.cardiologysite.com

#### University of Florida- Vascular Biology Working Group

Site offers multiple continuing education modules related to cardiovascular diseases and treatments.

http://www.vbwg.org/meeting\_highlights.cfm

#### **Baylor College of Medicine**

Lipids online provides a slide library and educational modules related to topics in atherosclerosis, dyslipidemia and lipid management. http://www.lipidsonline.org

#### **Baylor College of Medicine**

Hypertension online provides educational modules on topics related to hypertension. http://www.hypertensiononline.org/home/about\_HOL.cfm

#### Cardiovillage

Sponsored by the University of Virginia Health System, provides access to online learning content in cardiology. http://www.cardiovillage.com

#### **Cardiac Trivia Challenge**

SkillsStat Self Testing and Assessment. Cardiac trivia question presented in a game setting. <u>http://www.skillstat.com/Flash/cardiacTrivia5\_531.html</u>

**Cardiologysite.com** Site includes instructional movies, 3-D animation of the heart, interactive heart sounds and murmurs, echocardiograms, introduction to coronary angioplasty. <u>http://www.cardiologysite.com</u>

#### **Cardiac Dictionary**

SkillsStat Self Testing and Assessment. Simplistic alphabetical listing of heart terminology and definitions. http://www.skillstat.com/Flash/cardiacDictionary531.html

#### SCCM's Cardiac Knowledge Line

Includes webcasts, podcasts and other information on Hemodynamic Monitoring, Arrhythmias, CPR, Heart failure <u>http://www.learnicu.org/Clinical\_Practice/Systems/Cardiac/Pages/default.aspx</u>

# Delirium

#### **ICU Delirium**

Website offers education and resources related to the monitoring and treatment of delirium for ICU patients and patient-oriented goal-directed sedation delivery. Sponsored by The Delirium and Cognitive Impairment Study Group, Vanderbilt University Medical Center Geriatric Research Education Clinical Center, United States Department of Veterans Affairs, and Vanderbilt School of Medicine www.icudelirium.org/

#### **ICUSteps**

A family and patient website established in the United Kingdom that offers resources for patients and family members who have experienced an ICU stay which has involved an experience of delirium. The site offers an ICU guide for patients and families, among other resources www.icusteps.com

End of Life and Palliative Care

PEP-C (Palliative Care Education Program - Calgary) online is an accessible, selfdirected, web based education program on a variety of topics in palliative care. http://www.seniorshealthandpalliativecareeducationcalgary.com/ Needs account and password (or enrollment key)

## End of Life/Palliative Education Resource Center

Provides a variety of case studies and web based training modules related to palliative care <u>http://www.eperc.mcw.edu/EPERC/EducationalMaterials</u>

#### **Center for Palliative Care Education – University of Washington**

Provides a variety of website links and resources http://depts.washington.edu/pallcare/links/list.php

## **Center to Advance Palliative Care**

Improving Palliative Care in the ICU Resources website – povides a variety of templates, toolkits and resources to facilitate ICU palliative care improvement. http://www.capc.org/ipal-icu/

#### SCCM's End of Life Knowledge Line

Includes webcasts, podcasts and other information on end of life issues (Beginner and Advanced) http://www.learnicu.org/Clinical\_Practice/Systems/End\_of\_Life/Pages/default.aspx

#### Gastroenterology

**The DAVE Project**, an acronym for the Digital Atlas of Video Education, is a collection of teaching tools. The project consists of a gastrointestinal endoscopy video atlas and medical lectures and presentations. http://daveproject.org/index.cfm

<u>mup.//daveproject.org/mdex.cm</u>

General Critical Care Medicine

#### **Critical Care A Day**

Provides critical care pearls, Calculators/Formulae, procedural videos, a database of critical care related articles and protocols and other resources <a href="http://www.icuroom.net">http://www.icuroom.net</a>

#### **Medscape Critical Care CME**

Provides a variety of topics and case reviews related to critical care medicine <u>http://cme.medscape.com/criticalcare</u>

# **Critical Care Medicine Tutorials**

Developed to assist medical residents during their critical care rotation in the surgical ICU at the University of Pennsylvania provides instructional content and case studies on respiratory failure, shock, renal failure and sepsis. http://www.ccmtutorials.com/

#### **Society of Critical Care Medicine**

Contains links to guidelines and recommendations regarding various critical care topics such as management of corticosteroid insufficiency, sepsis, hemodynamic support, etc. http://www.learnicu.org/Quick Links/Pages/default.aspx

#### The Merck Manuals Online Medical Library

This site contains links to information on treating critically ill patients including information on vascular access, respiratory and cardiac arrest, mechanical ventilation, etc. http://www.merck.com/mmpe/sec06.html

# Hemodynamic Monitoring

**Pulmonary Artery Catheter Education Program (PACEP)** provides educational modules on the use of pulmonary artery catheters by presenting novice to expert instructional material along with challenging case studies for further learning. <u>http://www.pacep.org</u>

## Infectious Disease/Antibiotics

#### University of Washington School of Public Health

Offers 3 infectious disease modules. The first module focuses on emergence of infectious disease and includes lectures on influenza and Tb. The second module focuses on current challenges in infectious diseases and includes lectures on HIV/AIDS and West Nile Virus. The third module focuses on public health response and vaccine development.

http://depts.washington.edu/eminf/2004/lectures.htm

#### **Centers for Disease Control and Prevention**

Power point slides to educate health care providers about drug resistance and the ways in which we can prevent antimicrobial resistance from occurring.

#### www.cdc.gov/DRUGRESISTANCE/healthcare/ha/HASlideSet\_clean.ppt

John Hopkins Antibiotic guide allows the practitioner to search information by diagnosis, pathogen, or antibiotic type. Infectious disease considerations and recommendations are given where appropriate for diagnosis or pathogen. (Available to download to palm.). http://www.hopkins-abxguide.org/

## SCCM's Infection Knowledge Line

Includes webcasts, podcasts and other information on Nosocomial, Sepsis, Infection Control and Disease http://www.learnicu.org/Clinical\_Practice/Systems/Infection/Pages/default.aspx

## Laboratory Tests

**Labtestsonline.** Searchable lat test site for specific tests, conditions/diseases, or screenings. Each topic is explained in simple terms and is correlated to a specific laboratory test. <u>http://www.labtestsonline.org</u>

# *Neurology/Neurosurgery*

National Institute of Neurologic Disorders and Stroke. Site contains index of multiple neurologic disorders and videos on neurologic topics http://www.ninds.nih.gov/disorders/disorder\_index.htm

**The Spine Center.** Site contains educational videos on conditions of the spine, surgical and nonsurgical spinal procedures. http://www.spinecenterofdupage.com/video5-spine-procedures.html

**Foundation for Education and Research in Neurologic Emergencies.** Site contains videos on the a variety of neurological topics. Contains intracerebral hemorrhage and hypertensive emergency CME training modules. http://www.ferne.org/

**Neuroland.com** General Web Reference for multiple neurologic disorders with multiple links and references. http://www.neuroland.com

Christopher Reeves Spinal Cord Injury Resource Center. Discusses the basics of spinal cord injury and the possible sequelae related to the level of injury.

http://www.spinalinjury.net/

**Stroke Center** – Resource on Strokes, visit Stroke Information for Health Care Professionals review anatomy and physiology, great diagnostic imaging section. <u>http://www.strokecenter.org/prof/</u>

#### SCCM's Neurology Knowledge Line

Includes webcasts, podcasts and other information on Head Injury, Sedation and Delirium, Stroke, Depression (Beginner and Advanced) http://www.learnicu.org/Clinical\_Practice/Systems/Neurology/Pages/default.aspx

# Nutrition in the Critically Ill

**Critical Care Nutrition** provides information on current research being performed in critical care nutrition as well as current guidelines for enteral v. parenteral feeding in the critically ill adult.

www.criticalcarenutrition.com

#### **Continuing Education in Nutrition Life Long Learning Program**

In-depth nutritional education program focusing on the changing metabolic needs of the critically ill adult.

http://lllnutrition.com/login/signup.php

#### SCCM's Nutrition Knowledge Line

Includes webcasts, podcasts and other information on nutrition http://www.learnicu.org/Clinical\_Practice/Systems/Nutrition/Pages/default.aspx

# Pharmacology

# **Critical Care London**

Critical care self-directed learning modules on analgesia, sedation and delirium. http://www.lhsc.on.ca/critcare/icu/drugs/drugindex.html

Critical Care Medicine Tutorials. Tutorials on anesthesia, critical care medicine, pain management, regional anesthesia, and internal medicine. http://www.ccmtutorials.com/

**Pain Management** – the online series – 12 pain management online modules. Provides in-depth information on pain from the pathophysiology of different types of pain to the assessment of the patient and evaluation of pain.

American Medical Association

http://www.ama-cmeonline.com/pain\_mgmt/

## **Kaiser Permanente**

On-line web video presenting information on advanced critical care (inotropes, vasopressors, sedatives, opioids, and analgesics).

http://nursingpathways.kp.org/national/learning/webvideo/programs/accc2\_therape utics/index.html#speaker

# Physical Assessment

Presents basic heart sounds and lung sounds audibly. http://www.stethographics.com/main/physiology\_ls\_introduction.html

# University of Washington Department of Medicine

Advanced physical diagnosis website. Contains heart tones and murmurs and tips for examining the heart, lungs, liver, and thyroid. http://depts.washington.edu/physdx/heart/index.html

**University of Florida.** Physical exam study guides for each body system. Contains information on normal and abnormal findings. <u>http://medinfo.ufl.edu/year1/bcs/clist/</u>

# Pulmonary

**The Auscultation Assistant.** Gives audible auscultation sounds of the normal lung, crackles, and wheezes. <u>http://www.wilkes.med.ucla.edu/lungintro.htm</u>

California Society of Anesthesiologists Ventilator Associated Pneumonia CME module. http://www.csahq.org/pdf/bulletin/crit\_care\_mod\_57\_3.pdf

# **Kaiser Permanente**

On-line web video presenting information on advanced critical care (ventilator modes, use of PEEP, ABGs, and management of the patient with ARDS).

# http://nursingpathways.kp.org/national/learning/webvideo/programs/accc3\_resp/in dex.html

# Radiology

**Learningradiology.com** Provides lectures on multiple different chest topics including aspiration pneumonia, pleural effusion, pneumonia. Also provides links to view chest x-rays of multiple topics.

http://www.learningradiology.com

Harvard Med School Chest Radiology: Contains a brief introduction to x-ray interpretation along with 11 case studies for specific conditions. <u>http://brighamrad.harvard.edu/education/online/clerk\_2/read.html</u>

**Radiology Case Museum** - A database of radiology examples <u>http://myweb.lsbu.ac.uk/dirt/museum/museum.html</u>

# **Chorus Hypertext of Radiology**

Contains various diagnostic testing images for multiple conditions. Conditions are divided under system headings (i.e. cardiovascular, nervous system, etc). Must be a member of BMJ to visualize large versions of the diagnostic testing images. http://chorus.rad.mcw.edu/

**Goldminer** is a search engine that understands medical terminology and has access to over 200,000 radiologic images published in peer-reviewed journals. <u>http://goldminer.arrs.org/</u>

**Chestx-ray.com** This site contains multiple lectures on a variety of topics pertaining to thoracic imaging. The ABC's of blunt force trauma is an especially good lecture that helps the practitioner focus on specific common diagnoses after such things as a car accident.

http://www.chestx-ray.com/Education/Education.html

# Tutorial: CT in head trauma

This site includes multiple types of head traumas and accompanying CT scans including subdural hematomas, subarachnoid hematomas, intracranial air, etc. http://www.radiology.co.uk/srs-x/tutors/cttrauma/tutor.htm

# University of Virginia (UV) Radiology Reviews Series Introduction to Head CT

Reviews cranial anatomy, topics of trauma, stroke, degenerative diseases, infection, and tumor. All topics are accompanied with actual CT scan results to help the learner visualize the changes.

http://www.med-ed.virginia.edu/courses/rad/headct/

## UV Interpretation of the ICU chest Film

Includes films of post-op CABG patients, how to identify NG tube placement, IABP placement, swan-ganz catheter placement, etc. <u>http://www.med-</u>ed.virginia.edu/courses/rad/chest/

## **UV Cervical Spine Imaging**

Discusses the use of x-rays in the diagnosis of cervical spine injury. In-depth discussion of different views used in order to make accurate diagnoses. http://www.med-ed.virginia.edu/courses/rad/cspine/index.html

## **UV Skeletal Trauma**

Provides an introduction to diagnosing skeletal trauma by x-ray. http://www.med-ed.virginia.edu/courses/rad/ext/index.html

## **Vesalius Clinical Folios**

Addresses a wide variety of topics related to each body system. http://www.vesalius.com/cfoli.asp

#### **Organ System Modules**

**University Hospital of Cleveland** site contains links to multiple radiology case studies. Each case study includes the accompanying radiologic testing pictures. Imaging that is addressed on this site include womens' imaging, neuro imaging, musculoskeletal imaging, Nuclear & SPECT imaging, PET scan, and body imaging. (Advanced) www.Uhrad.com

# Renal Failure

**Critical Care Medicine Tutorials-** Home page contains a link to a tutorial on renal pathophysiology, oliguria, renal replacement therapies, and acid-base balance. <u>http://www.ccmtutorials.com/</u>

# SCCM's Renal Knowledge Line

Includes webcasts, podcasts and other information on renal topics <u>http://www.learnicu.org/Clinical\_Practice/Systems/Renal/Pages/default.aspx</u>

# Sepsis

# **Surviving Sepsis Campaign**

An initiative of the Society of Critical Care Medicine and the European Society of Intensive Care Medicine developed to improve the management, diagnosis, and treatment of sepsis

http://www.survivingsepsis.org/Pages/default.aspx

# Medscape

Sepsis associated shock, management of ARDS, and mechanical ventilatory strategies. http://www.medscape.com/viewarticle/452476\_4

# **Society of Critical Care Medicine**

Contains links to guidelines and recommendations regarding various critical care topics such as management of corticosteroid insufficiency, sepsis, hemodynamic support, etc. http://www.learnicu.org/Quick Links/Pages/default.aspx

# Therapeutic Hypothermia

# SCCM's Hypothermia Knowledge Line

Includes webcasts, podcasts and other information on therapeutic hypothermia <u>http://www.learnicu.org/Clinical\_Practice/Systems/Therapeutic-</u> <u>Hypothermia/Pages/HypothermiaPresentations.aspx</u>

# Trauma

# Trauma.org

Provides a databank of images, case discussions and articles that are useful references for trauma related topics.

http://www.trauma.org/resus/teamleader/teamleader.html

# **Trauma Brain Injury Foundation**

<u>Provides guidelines for EMS and hospital management of patients with traumatic brain</u> <u>injury.</u> <u>http://www.braintrauma.org</u>

# John C Lincoln Hospitals. Site contains extensive trauma-related education for medical professionals.

http://www.jcl.com/content/trauma/professional\_education.html

# **University of Connecticut**

This is a video tutorial on the examination and management of the trauma patient. http://www.conntutorials.com/chapter2.html

**Center for Disease Control.** Navigate to the link labeled Public Health Professionals and Clinicians. Contains information on what to do after terrorist bombing, blast injury fact sheet, mass brain injury, etc. http://www.bt.cdc.gov/masscasualties/resources.asp

# World Health Organization's guidelines for essential trauma care.

http://www.who.int/violence\_injury\_prevention/publications/services/guidelines\_traumac fare/en/index.html

# General Educational Sites

# Morbidity and Mortality Rounds on the Web

Agency for Healthcare Research and Quality – covers a variety of clinical topics, patient safety issues, patient care issues with monthly topic discussions (Beginner and Advanced) http://webmm.ahrq.gov/

Clinical Cases and Images-Blog A comprehensive site for clinical cases and images http://casesblog.blogspot.com/2002/01/about-us.html

**Pathology at Pathology.org.** Site contains educational videos on the pathology related topics

http://pathlab.org/FNA\_Cytology\_Technique\_Pathlab.org\_Pathology\_UK\_Video\_C ytology\_Books\_Media\_News.html

**MedicalRounds.com.** Site offers online continuing medical education for health care providers through streaming video of medical rounds. <u>http://www.medicalrounds.com</u>

## **Vesalius Clinical Folios**

Addresses a wide variety of topics related to each body system. Site is easy to navigate and contains pictoral demonstrations of chest tube placement. Site also reviews abdominal CT scan interpretation. http://www.vesalius.com/cfoli.asp

<u>nttp://www.vesanus.com/cion.asp</u>

# **Baylor College of Medicine's continuing education website**

(<u>http://www.baylorcme.org/specialty.cfm?menu\_id=38</u>) also offers continuing education on a variety of clinical topics

# **Cleveland Clinic**

Continuing education modules. Includes modules on AMI, thrombophlebitis, pancreatitis, fatty liver, thrombocytopenia, CAP, and others <a href="http://www.clevelandclinicmeded.com/online/casebased/decisionmaking/">http://www.clevelandclinicmeded.com/online/casebased/decisionmaking/</a>

Northwestern University Center for Genetic Medicine. Site contains video lectures on genetics, primarily for healthcare professionals. http://www.feinberg.northwestern.edu/education/

**University of Wisconsin-Madison.** Innovation in Medical Education Video Library. Site contains educational videos on numerous topics for the healthcare professional. Free registration.

http://videos.med.wisc.edu/category.php?categoryid=31

University of California Television. Site contains educational videos for faculty, students, staff, patients and others on multiple current healthcare topics. <u>http://www.uctv.tv/meded/</u>