New Media

Review of SimBioSys ACLS review

Advanced Cardiac Life Support (ACLS) is one of a family of instructional software products from SimBioSys®. It is available only for PC/Windows operating system. The program material derives from the American Heart Association's ACLS Guidelines (1996). It provides instructional material (nine text chapters such as patient assessment, universal algorithm, tachycardias and cardioversion; a reference section pertaining to drugs, procedures and ECG rhythms) as well as case-based scenarios. The latter can be attempted as a tutorial, with constant feedback or with known or unknown rhythms.

Microsimulators offer several advantages over conventional learning instruments. They are convenient and readily available, offer active-learning, patient instruction and provide contextual feedback at an appropriate pace. Judgement is impartial and confidential, allowing the user to repeat problematic scenarios. How does this product measure up? Can this program replace an experienced human instructor?

The textual material is extensively cross-referenced with "hypertext" meaning that double clicking the mouse button on an unfamiliar drug or rhythm will immediately take you to a discussion of the pharmacology or an ECG strip. If a procedure, such as carotid sinus massage is required, a photograph and description can be invoked with a mouse-click. Textual algorithms are generally dry and there is no easy way to memorize them. Algorithms presented in this program are also linked to descriptive elements, but ultimately, the material must still be memorized.

The scenarios were actually fun to complete. There are 55 scenarios and they don't always play out the same way. A small cartoon sets the scene; an ambulance is moments away as you assess responsiveness, airway patency, breathing and circulation, providing the required basic life support until help arrives. Help arrives and thankfully an ECG monitor, defibrillator, transcutaneous pacer, endotracheal tube and intravenous medications are made available. The clock is ticking - but can be stopped to ask for advice or to collect your thoughts.

The program has many more strengths than weaknesses. It is easy to install and its use is straightforward. The material is sufficiently diverse that similar subjects can be presented in several variations to reinforce concepts without seeming repetitive. There is a tutorial, but the manual suggests that you simply play. There is the occasional typographical error and some of the descriptive material is inaccurate (e.g. cricoid pressure can help with glottic visualization) or vague. Many of the photographs and drawings fail to take advantage of the possibilities that multimedia offer. The program is a mere 12MB while a CD ROM has a capacity for 650MB. There are no videoclips showing procedures. ECGs are all static strips when they could be dynamic rhythm strips. An ECG or pulse oximeter beep (with a mute button) would have added an element of realism. Pulseless electrical activity is probably the most complex component to teach, yet examination of the patient is very restricted and does not allow for inspection of the trachea, auscultation of the lungs or heart or examination of neck veins. I wanted to perform a pericardiocentesis or needle thoracostomy on my pulseless patient but was advised that nothing could be done.

I would recommend this program for anyone who has taken or would benefit from ACLS instruction. SimBioSys intends to update this program when an international consensus conference releases its guidelines late this year. The updated version will either be free or discounted, depending upon the date of purchase. Why not download the free demo on their website <<http://www.critcon.com>>.

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Critical evaluation of medical internet resources

A key concern of clinicians and patients is that medical information obtained via the Internet be trustworthy and of high quality. For example, how can a physician be confident that an article on a new drug represents a