Pedi-Anesth (iPhone app) v1.1.1. Starship, 2015. Available from the iTunes App Store. Price: Free for 3-day Trial, $0.99 for Lite Version, $4.99 for Pro Version.

Modern smartphone technology was introduced in the early 2000s, but it was not until the debut of the iPhone in 2007 that the revolution in handheld information management and presentation took hold. Key to the success of the iPhone is its intuitive and clever industrial design, easy operability, consistent menu structure, and shallow menu depth (the number of clicks it takes to get to needed information). Such a design makes the iPhone (and all similar smartphones) an excellent tool for rapid information dissemination and retrieval.

The ability to have gigabytes of information in the palm of one's hand has naturally expanded the smartphone's use in many if not nearly all areas of life, including medicine. One of the essential elements of the delivery of anesthesia care is the application of learned (stored?) information in a time-critical manner. Anesthesia care can only be made better if accurate information, especially information that may have been learned but later forgotten, can be retrieved rapidly. The *Pedi-Anesth* app is just such an effort.

Today, searching for the term "anesthesia" in the iTunes App Store produces hundreds of results. (Note: *Pedi-Anesth* is listed as an "iPhone only" app. Searching from an iPad will not find the app unless *iPhone app* results are specifically included, at least on my iPad Air with iOS 9.2.) *Pedi-Anesth* is result number 14 and allows a free trial.

The app's design is clean and simple with the opening page permitting the entry of a patient's weight or age. This information then propagates throughout the program to permit the rapid retrieval of guidance in eight different categories. These include Growth and Development, Fasting Guidelines, Medications, Airway, Fluid and Blood Management, Special Problems, Resuscitation, and Congenital Cardiac Disorders. As a teaching pediatric cardiac anesthesiologist, I find the diagrams in the Congenital Cardiac Disorders tab to be especially useful for illustrating cardiac anatomy to students and others in the operating room.

The categories are nicely designed and include information that is used on a daily basis when caring for children. These include endotracheal tube sizes, typical insertion depths for endotracheal tubes, resuscitation protocols, treatment of hyperkalemia, diabetes insipidus, and many other conditions. A section labeled "Transfusion Short Cuts" lists the expected rise from specific aliquots of blood components.

Pedi-Anesth v1.1.1 is a good first effort, and much useful information is contained in the app. It will be useful for trainees in pediatric anesthesiology and for the occasional pediatric anesthesia practitioner. However, its information is not encyclopedic and one should not expect such a large volume of information in early efforts like this. One example is the recommendation for the treatment of Von Willebrand disease (VWD). Although the app notes that the "treatment depends on the type of VWD," it goes no further. Experienced practitioners and those who have completed Board examinations recently will know that desmopressin response is significantly lower in children younger than 2 yr and that its use in VWB type 2B should be "cautiously considered" and probably not used at all in VWD type 3.[1] Interestingly, the category for subacute bacterial endocarditis prophylaxis only references prophylaxis for dental surgery and appears to use the Canadian and British recommendations rather than those of the American Heart Association.

The matter of references should also be mentioned. The app includes a section on its home page labeled "Reference Card." The information in that section is taken from *A Practice of Anesthesia for Infants and Children*, edited by Cote, Lerman, and Anderson (published by Elsevier) and lists the medication doses and treatments on a milligram-per-kilogram basis or a similar basis. These are the formulas used in other sections of the app. Unfortunately, no reference is given to the edition number of the textbook, and there appears to be no mechanism to signal when information is updated, something promised to subscribers of the Pro version of the app.

The creation of knowledge-driven decision support systems is an important goal of the information revolution taking place in health care.[2] The challenge of building such systems goes beyond the scope of this review. But easily used smartphone apps like *Pedi-Anesth* are a nice first step in our attempts to harness the power of information technology for the betterment of our patients.

Postscript: I asked my 18-yr-old daughter to review my first review of an app, and she told me that I have not used enough "hip" language like "cool," "rad," or "wicked." I have also failed to use the requisite number of exclamation points in a typical app review, especially for a good product. I am at a loss for words, and apparently, punctuation marks.

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