

### COMPUTERS, TABLETS, SMART PHONES FOR PEDIATRICIAN

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- What is difference between computers, tablets and smart phones
- How to use it in office practice
- Advantages and disadvantages over each other
- Apps and software's available
- Help in recent advances to become smart
- Helps to parents and children and adolescent

Characteristics	Computers	Tablets	Smartphone
Screen Size	14 inch	7 inch	5 inch
Touch Screen	Absent	Present	Present
Virtual Keyboard	Absent	Present	Present
Portability	Difficult	Easy	Easy
Functionality	Best	better	ok
Less Cumbersome	Difficult to carry	Can carry easily	Very easy to carry
Battery Life	longer	longer	less
Flexibility	good	fair	good

#### The tablet is capable mobile computing device.

**1. Portability:** A tablet is thinner, lighter, and more portable by a long shot. Speaking of bags, most laptops require their own luggage to transport from Point A to Point B, but you can grab a tablet on your way out the door like you're picking up your keys or sunglasses.

**2. Functionality:** The tablet may not be as versatile as a laptop in the functionality department, but it is significantly better than a Smartphone. Tablets have larger displays that give you more real estate to get real work done. In fact, with larger tablets the display is on par with smaller laptops, allowing you to get more done. Of course, the virtual keyboard uses up half the display, so you have less screen to work with when you're actually working. Regardless, though, tablets beat smart phones when it comes to being productive.

**3. Less Cumbersome:** Have you ever tried to get work done on a laptop while riding in a taxi, or during a flight? It's not fun. A tablet is easy to just turn on and use in any environment.

**4. Battery Life:** Most tablets have battery life that is far better than laptops. Laptops are steadily improving in the longevity department, but most would still struggle to make it through a full work day, and many won't make it to lunch. Tablets on the other hand, seem to last forever even when pushed to the limits.

**5. Flexibility:** A tablet sits somewhere between the Smartphone and laptop in most areas, and flexibility is no exception. In many ways, a tablet can fill the role of a laptop and perform most, if not all, of the same functions. But, the tablet is also more versatile. Most can take photos, or shoot videos in addition to allowing video chat and conferencing.



They also work nicely as e-readers (or in some cases the e-reader has evolved into a tablet) for accessing an entire library of books on the go. Some of these things are technically possible, but ridiculous in a practical sense with a notebook.<sup>[1]</sup>

- A tablet is ideal for some tasks, and suitable for many, but there are still a variety of scenarios where a laptop or Smartphone might be a better choice. Consider the pros and cons of each mobile device, and choose the best tool for the task at hand.
- **Three areas in pediatrics where smart phones and tablets can replace computer.**

**Technology is minimizing human effort in every filed and in our day to day activities.** It applies to Medial practice too. **1) During Rounds:** - During daily rounds in the nursery and on the ward, some Smartphone apps can speed things along. For example, we can keep the orders right away with the hassle of pen and notepad and then re-enter in the computer later. We use a Smartphone app called **Converter Plus** to quickly translate this information for parents and for daily notes.

If the baby is jaundiced, one can use either the **BiliCalc or Jaundice app** to plug in a baby's transcutaneous or serum bilirubin level to determine risk level and view threshold levels for phototherapy. We can use this photo app to tell parents to consider installing a useful app on their mobile device later to check how the kid is responding to management.

**KidsDoc** from the American Academy of Pediatrics (AAP). This Smartphone app can be used to find answers to many routine questions for new parents, including those related to circumcision and cord care, spitting up, rashes and birthmarks, teething, fever management, and so on. KidsDoc informs parents about home care and advices when to seek medical attention. It has an online counterpart on the AAP's <http://HealthyChildren.org/Website> - **one of the best parenting resources on the Web.** **2) In the office :-** in the office, we can use smart phone or tablet medical apps to accomplish a variety of tasks- check drug dosages, look up and share medical

information with parents, or investigate treatment options, to name a few. Using the touch screen on tablet or smart phone is much more convenient compared to using a traditional computer.<sup>[2]</sup>

With tablet we can read local newspaper and medical journals, listen to a podcast, or read the digital version of latest **Guidelines websites or Medical journal websites like New England Journal of Medicine App.** during those rare lulls in the daily havoc. And because of mobile devices, our shelves would be less cluttered because no longer need a long list of library filled with outdated textbooks and journals. **3) Drug information and popular references. :** - Everyone has his or her favorite mobile app for looking up drug dosages. Many are available, but usually at or near the top of everyone's list are Epocrates this drug-information smart phone app is free, and typing in the first few letters of the drug quickly brings up the dosing information as well as the coverage status (tier level) of most insurance companies.<sup>[3]</sup>

Another extremely comprehensive mobile resource is **Lexicomp** (available in Smartphone and tablet versions).

**IAP** is also trying to help paediatrician to use computers and keep update with pace of world.

**IAP Websites :** [www.iapindia.org](http://www.iapindia.org), [www.ijpp.in](http://www.ijpp.in)  
[www.iapdrugformulary.com](http://www.iapdrugformulary.com)

Our **Drug Formulary** by Dr. Jessan Unni is really the best device all paediatricians must install into their computers or tablet. It is very useful in practice. In September 2013, 32nd edition has come and this formulary is updated every 3 months.

Our **IAP software** helps in making our clinic as Paper less Clinic. I am using this software since 1999 and before that I was using Papan Automation Software since 1994 we use to give Marathi prescription through gist card developed by C-DAC, Pune at that time and I feel that local language printout helps patient. All information is on click of mouse. Due to this software it reduces duplication of work. You can audit your work. Patient data is on one screen. It helps in Complete Clinical Analysis.<sup>[4]</sup>



Diagnosis wise information Predefined Medicine list & Standard Treatment. It Auto Generates Growth chart. It gives 3c OPD Register.3c IPD Register Due Vaccine Reminder. Alert through SMS.

- We are awaiting for voice software where doctor will tell the command and computer will write down and will give us print out. This will help to save time and operator work and money.
- In our OPD we can keep running parent education messages and cds which helps parents in waiting to understand vaccination, how to handle common problems and prevent diseases. So now **start from today!! it is never late ...**

#### References :

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3. Rosenfeld D, Hebert PC, Stanbrook MB, et al. Being smarter with smartphones. Can Med Assoc J. 2011;183:E1276.
4. Rosser BA, Eccleston C. Smartphone applications for pain management. J Telemed Telecare. 2011;17:308e312.