

Choosing the right Tablet for a Clinical Setting – What to consider?

This document aims to provide some guidance to assist you to choose a suitable Tablet device for your clinical setting.

1. What operating system is in use at your organisation?

Consider the existing operating system used within your organisation. Commonly health services in Victoria utilise a Microsoft Windows operating system. Apple or Android devices may pose challenges if IT have not developed the systems and processes for their safe use in the organisation. The benefits need to be weighed up against the challenges to determine which Tablet device will best fit with your organisation's primary operating system and still provide good service to the end users for the required purpose.

2. What is your organisation's view of electronic tablet devices?

Begin liaising early with your IT department when considering purchase of electronic Tablet devices. It is possible that Tablet devices are already used within your organisation. Your IT department may favour a particular device manufacturer, supplier or operating system. Generally, IT departments prefer to limit device and operating system variability in the organisation to ensure consistency of user experience (i.e. desktops, logins etc) and ensure streamlined technical support and maintenance. You should check that the chosen Tablet device will be effective for use in video-conferencing e.g. camera and screen quality, presence of both front and rear cameras, microphone and speakers.

3. What should you consider when choosing an electronic tablet?

a. Size

This refers to the dimensions of the Tablet such as 7" versus 10" screen sizes. Consideration should be given to carrying the device (e.g. does it fit in a bag) and its ability to be positioned within different environments when in use during a session.

b. Weight

The Tablet needs to be easy to transport within the clinical setting and community (if applicable), therefore attempting to keep weight to a minimum may encourage its use.

c. Screen quality

Given the Tablet is to be used for video-conferencing, screen resolution is an important consideration. Generally, having a larger screen and higher resolution lets users operate the Tablet effectively. A higher resolution screen will also enable a higher quality picture when using video-conferencing applications.

d. Cameras / Resolution

Many Tablets come with one or two cameras. Two cameras will enable versatility with front and rear facing cameras, whereas one camera will only be a front facing camera. When using video-conferencing a front and rear facing camera is highly desirable. In addition to videoconferencing, cameras may also be used to take photos on home assessment or record treatment sessions, therefore ensuring the camera has high resolution is necessary. A minimum of 3 megapixels (MP) is recommended.

e. Audio

The speakers on most Tablets are very small. It is important to test out the sounds and check the maximum volume. Consider that the Tablet may be used in a busy environment; therefore a headphone connection is useful. Headphones are usually purchased separately; a headphone with a microphone is desirable – particularly for use in video-conferencing. A Bluetooth headset could be considered for a cable free connection between the user and the device.

f. Wireless connectivity

Effectively all Tablets have wireless capability, for most this means there is Wi-Fi access. There are however two versions of Wi-Fi, 802.11b/g and 802.11n. To allow streaming of video and downloading of large items a Tablet with the 802.11n specification is recommended. A Tablet that supports 2.4 GHz and 5 GHz radio bands will enable the best choice Wi-Fi connection.

If the device is to be used offsite and a 3G or 4G connection is utilised, ensure the device is Wi-Fi and 3/4G enabled as some devices are only Wi-Fi enabled. If multiple devices are to be purchased, consider purchasing all devices 3/4G enabled so they are interchangeable to allow maximum flexibility when some items are lost or broken.

g. Battery

The size of the battery, the brightness of the screen backlight, and the amount of time the tablet is in 'active mode' will all affect the battery life. It is important to find out how long the Tablet will run in 'sleep or hibernate' mode and how long it will run in 'active' mode as this may have impact on useability over a day. Streaming video (video-conferencing) will use greater amount of power than for example web browsing, therefore a long battery life is essential. Consider also that the device may be taken offsite where a charger may not be available.

h. Storage memory

Storage Memory refers to the amount of space on the device to accommodate installation applications and storage of photos, videos or any other data that may be accessed on the device. Different models of Tablets have a wide range of internal storage capacity; it can be as little as 1GB (gigabyte) and up to 500GB. Many tablets have the ability to increase storage with a memory expansion slot; this is generally not required for a device that will be used for clinical supervision purposes within a health facility. However, it is always important to consider what may be stored on your device and the number of applications that may be used. Generally 16 to 32 GB is an adequate amount of memory.

i. Ruggedness

Devices used in the Hospital and transported to homes are preferably durable enough to withstand the rigours of use in these settings. Ruggedness can add considerable expense if used as a criteria for selection so the decision may come down to value versus ruggedness. A sensible approach may be to procure spare devices at a much lower cost.

j. Applications

Prior to purchasing the Tablet, it is worthwhile investigating what Applications may be useful for your organisation / department. The tablet may be used for therapy, other clinical tasks as well as video-conferencing during clinical supervision. Each brand of Tablet has a corresponding online store where Applications are purchased; this store varies between Tablets (e.g., iPad apps are purchased from the iTunes store). Not all applications are available in each store. Generally iTunes have the greatest variety and number of applications dedicated to Apple iPads; however other stores are increasing the variety of Applications available over time.

k. User experience

Students and staff members alike, require a simple and intuitive user experience to best foster acceptance and uptake/ongoing use of Tablets, despite little or no IT knowledge. In our experience through the iPad project at Caulfield Hospital, the benefits of choosing Apple iPads have been:

- They are a consumer device that is widely accepted
- They have a simple user interface (akin to iPhone) that has become somewhat a gold standard
- They are easy to learn and navigate even with little prior exposure

4. How might your organisation maximise value for money?

There is a great amount of variance when it comes to the cost of a Tablet device. Factors that affect cost include memory capacity, screen resolution, number and type of cameras and wireless connectivity. Also consider that you may need to purchase accessories and applications which will add to the overall cost. Should you plan to use the device offsite and away from Wi-Fi networks, additional costs will be incurred associated with the 3/4G connection. There is great variation in data plans including contract time, data allowances and costs for exceeding data allowances. You will need to check with your organisation's IT department to determine what arrangements they will support. The question of Bring Your Own Device may arise where staff prefer to utilise their personal device for work purposes – carefully investigate the ramifications of this and your organisations preparedness to accommodate non-corporate devices securely.

5. What associated hardware might you need to consider?

There is a range of hardware that can accompany a Tablet device including keyboards, headphones, microphones and cases/over shoulder bags. Refer to output no. 5c(iii) "Hardware to Support use of iPads in a Clinical Setting" for further details of hardware.

6. Who could you consult with?

Should you require further assistance with selecting an appropriate Tablet for your clinical setting, the Australian Centre for Health Innovation (CHI) based at The Alfred Hospital can provide further advice and guidance. The CHI can also liaise with vendors and your organisation's IT department to discuss the most appropriate Tablet solution for your department/service.

7. Should you trial a Tablet-device prior to purchasing?

Where possible, trialling devices prior to purchase are recommended to ensure the correct device is selected. Your organisation's IT department may be able to lend you a Tablet device that is already in use or liaise with your organisation's direct IT suppliers to organise a trial. The CHI is vendor agnostic and may also assist in trialling devices within your organisation, to ensure the end user requirements are best met.

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