

# **The Hurdles of New Technological Innovations**

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## **Introduction**

The Miriam Hospital has successfully implemented an EMR. In an effort to improve nursing workflow and electronic documentation, The Miriam hospital and its informatics committee began the execution of a plan to phase out computers on wheels and install computer wall units in all in-patient rooms. A pilot was also initiated with the end goal of selecting a tablet device, which would be provided to all Nurses with the goal of improving nursing workflow while increasing electronic documentation at point of care.

## **Methods**

The pilot began with the testing of an Apple IPAD on a 30 bed medical surgical unit with a focus in Cardio-Vascular and Telemetry monitoring. The device was customized with all applications used for nursing documentation and medication administration. Access to all applications were provided through a secure portal to a Virtual Private Network. A special scanner was also paired with the IPAD for barcode medication administration. The goal being that the IPAD be used as the main source for computerized documentation including reading and writing notes, looking up labs, patient education as well as administration of medications. Wall units and desktop PC's were to be utilized as backups should the device require charging. The pilot took place over a one-month period. Other RN's subsequently piloted the device on other inpatient-nursing unit in order to ensure that the device would be the best choice for a variety of nursing workflows.

## **Results**

The results of the pilot concluded that the Apple IPAD was not the best tablet device to support nursing workflow. There were many challenges including:

- Battery life
- Screen size and resolution
- The device did not allow the user to multitask and utilize different applications on the device outside of VPN.
- The device is primarily designed to have one dedicated user.
- Apple requires users to agree to terms and conditions via contract between user and apple. This is a challenge as the device is provided through an employer. Employees would have to agree to terms and set up individual accounts with apple.
- Barcode scanner required frequent pairing, up to 3-4 times a shift. This function should occur automatically once device is paired one time.
- Barcode scanner only worked for 3D barcodes requiring frequent override of other barcoded medications
- The IPAD was also new to our help desk therefore they were not equipped to provide a great deal of assistance if needed.

## **Recommendation**

Select another tablet device and begin pilot to determine compatibility with nursing workflow and documentation systems.