Section VI — Best Practice for Utilizing Other Technologies with AHLTA

There are many technologies that work natively with and inside of AHLTA. These include voice recognition which is part of the software in tablet PCs as well as specific voice recognition products such as Dragon Naturally Speaking. Additionally, tablets allow touchscreen utilization to move the cursor as well as handwriting recognition. The value of these technologies will depend on the individual provider's preferences and the work environment. Below the current best practices are discussed; the use of these IT tools should be part of the larger team process discussed in Section II.

Voice Recognition

Most providers find that it is best to dictate after the encounter once the patient has left the room. With voice recognition this is in part due to less ambient noise. Voice recognition software requires some minimal training. Accuracy of each application occurs with increased use. The use of a noise cancellation microphone and low ambient noise levels will help with accuracy. Microphones can either be worn as a headset (this is the microphone typically paired with Dragon) or handheld. Provider preference will determine type.

Not all parts of AHLTA have been designed for voice recognition or voice navigation use. With the Dragon product, pilot projects are underway to improve voice navigation and those lessons learned will be added to this document as they are learned.

Recommended Provider Workflow:

1. Enter room and open encounter and load Health History Module
2. Review with patient information and examine patient
3. Complete A/P with patient present this will be done largely with typing and the provider should be using order sets. Dictation will likely be used in Comments boxes under the diagnosis.
4. Patient leaves exam room
5. Open S/O to complete note. Click on the relevant MEDCIN term and dictate clarifying data into the free text box. Remember the ½ page limit.
6. Consider using DX Prompt and/or Prompt functions to find additional terms that were not part of the base template or AIM form that you are using.
7. Sign notes at a convenient time.

Tablet PC

Tablet PCs offer two primary additional benefits besides being able to use the native TabletPC voice recognition feature within AHLTA. These features are touchscreen control using a stylus and handwriting recognition. The use of the stylus can allow quick navigation and "box checking", though many parts of AHLTA are not optimized for use with a stylus. Handwriting recognition is another form of free text entry like dictation. For those who have used Palm or other handheld devices, this feature will be easy to use. There are two ways handwriting recognition can be used: cursive and printing. Advances in this technology along with a medical dictionary applet make the cursive the easiest to use. Other user options that must be set for efficient handwriting use are "undocking" where the writing surface arrives and when written words are entered. User preferences will determine these settings and will take some practice.

Recommended Provider Workflow:

1. Enter room and open encounter and load Health History Module

2. Review with patient information with tablet in keyboard mode and examine patient Complete A/P with patient present. This will be done largely with the tablet in the keyboard mode and using order sets. Handwriting recognition and stylus may be used for navigation and to enter free text in Comments boxes under the diagnosis.

3. Patient leaves exam room

4. Open S/O to complete note using a template or AIM form. The tablet is used in "slate" mode to write on the screen. Click on the relevant MEDCIN term and write using handwriting recognition to enter clarifying data into the free text box. Remember the ½ page limit.

5. Consider using DX Prompt or Prompt functions to find additional terms that were not part of the base template or AIM form that you are using.

6. Sign notes at a convenient time.

Wireless

The primary advantages of wireless are

1. The same as a tablet above since tablet PCs are being deployed to be used with wireless.

2. Main Benefit - Loading and viewing patient information in the hallway

    a. Open encounter and click on Health History Module (HHM); this retrieves all patient data and "stores" it for faster retrieval

    b. While HHM is loading, review note for today which should include information entered by the nursing staff

    c. Once the HHM is loaded, ancillary test and other information will be retrieved faster on the tablet. (Note: Ensure all settings for lab and rad retrieval are set appropriately)

    d. Note: yes, you can "store" several patients' information for quick retrieval by opening their HHM once they have been checked into the clinic.

3. Secondary Benefits

    a. Use in hallway to enter orders or other items that you may have forgotten

    b. No repetitive signing on to AHLTA (saves time)

    c. Completing tasks in meetings, etc

    d. Review next patient's notes.

Using PDFCreator for Placing Information into AddNote

Background: Anything that can be printed from a system (i.e. EKG, PFT result, EGD Summary report, etc) can be quickly captured and place into the AddNote section of AHLTA using PDFCreator. This software installs an additional print driver on your computer. Printing to this "virtual printer" will allow you to quickly capture an image one page at a time and place into AddNote. Installation and setup instructions are provided in the Appendix.

Once the software is loaded, the steps to place information into AHLTA are: Print to PDF, use the Snapshot tool in Adobe Reader to copy any area of the document, then paste directly into AddNote. Detailed instructions are provided below.

It should be noted that this work process does not require AHLTA to be on the workstation where the information is collected. Documents and images can be saved from the system that creates the report to

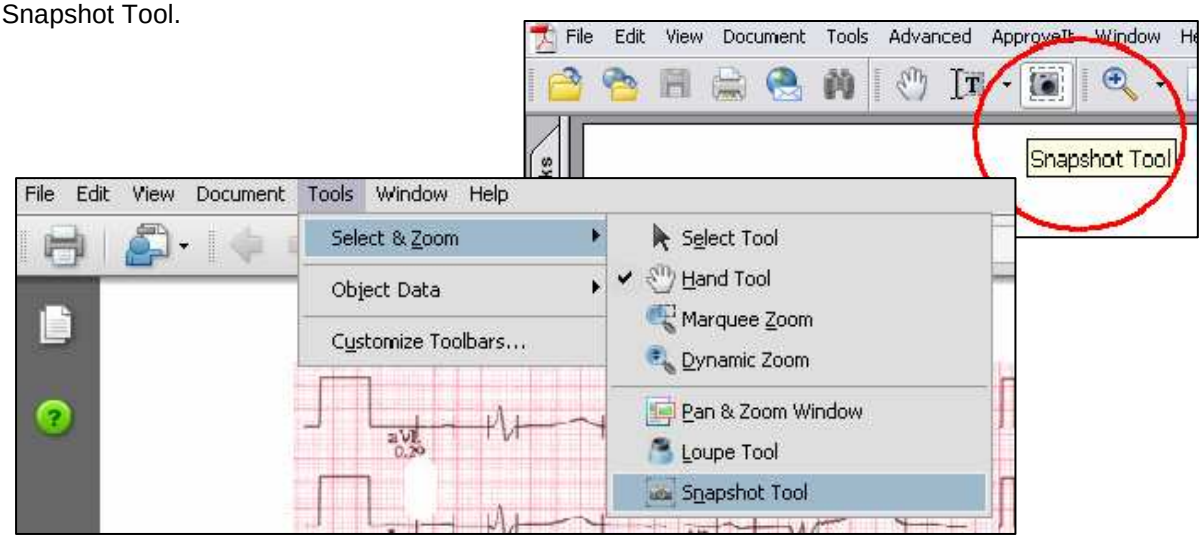
a folder on a shared network drive for later access by a computer on the network that has AHLTA. HIPAA restrictions should be observed regarding file names and retention.

PDFCreator can be used at any time once installation and setup are complete. For this example scenario we will use Microsoft OneNote, but this process will work for any application that would normally be printed and scanned.

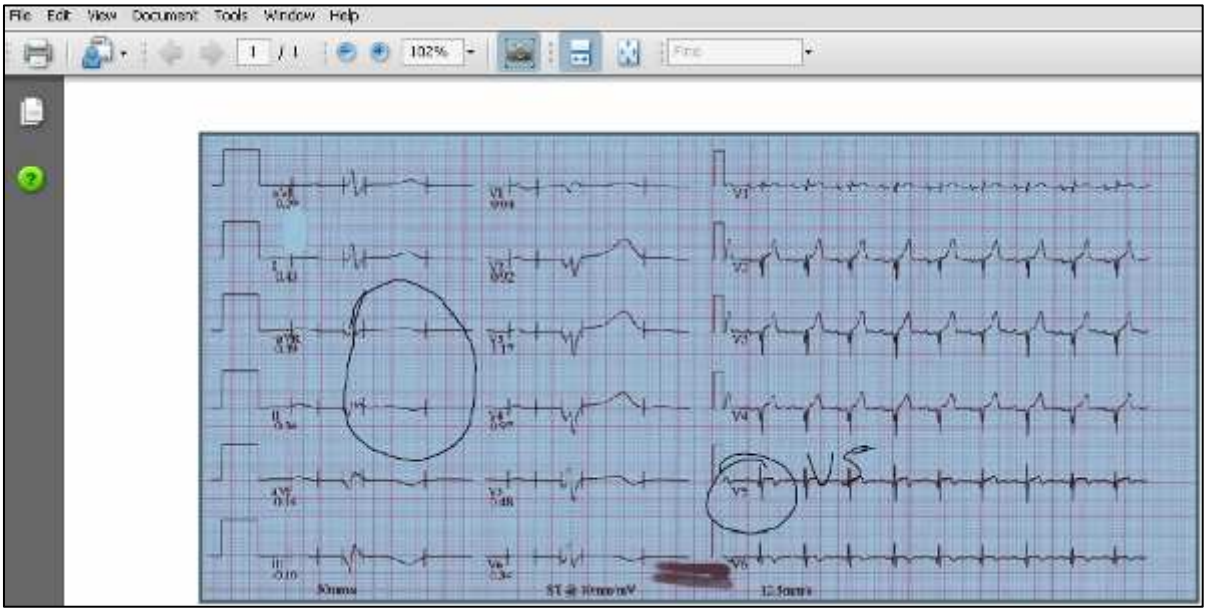
1. After completing your note in MS OneNote, click **Print**. When the dialog comes up, choose **PDFCreator** as your printer and click **OK**. (Note: you can also set PDFCreator as your default printer, but this will affect all programs on your workstation. You may want to do this while you are in clinic as this **significantly** speeds up the process.)

2. PDFCreator will convert your file to PDF, then open it using the Adobe Acrobat Reader application on your workstation.

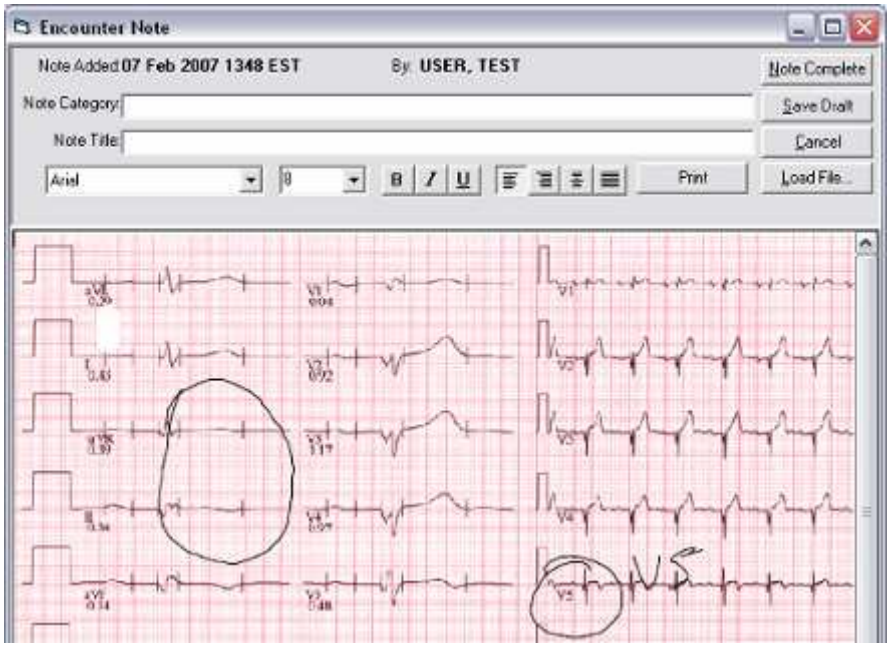
3. In Acrobat Reader, click on the Snapshot button on the toolbar or click Tools, Select and Zoom, Snapshot Tool.



4. Drag the box to highlight the area you want to capture. When you release the mouse, the area is copied to the computer clipboard. It is now saved in a format that you can paste into AddNote.



5. Open the AddNote module for the patient, click New Note, then Paste the image into the note area.



6. Name the Note as appropriate and complete the encounter.

7. Note: It will take about 5-10 Seconds from selecting print to the document displaying in the PDF reader; this time can be used to open AddNote. It is much faster than scanning and you will know that the information you wanted was placed in the note.