

Hardware Considerations for Private Practice Physicians

		
Optional nice to have	Recommended moderate end user impact	Required significant functional impact

Hardware	Recommendation	Alternatives and Considerations	Impact If Missing
Document Printer	Networked laser printer with a unique paper tray for each required stock type. Additional Detail: Laser/Multi-Function Printers	- If you have a single tray printer, you'll have to swap out paper for different printing jobs (e.g., plain paper, label stock, letterhead). - More cumbersome workflow, depending on how frequently you print different types of content	
Label Printers	Dedicated label printer compatible with ZPL, EPL, or IPL printer languages. - OR - Document printer with a label stock Additional Detail: Label Printers	- Only required if you are collecting specimens in clinic or need a patient label for a specific workflow. - If collecting specimens, you will need a dedicated label printer compatible with ZPL, EPL, or IPL. NL Health Services has overall gone with the Zebra ZD421 or ZQ610 with 2x1 stock. This stock also works for single patient labels and could be a shared printer. - If not collecting specimens but do need patient labels, you can use a standard printer with a tray of labels. This may not be cost effective, as you will use a full sheet of labels per print. - Impact to end users would be compounded if you don't have a dedicated label printer AND have a single tray document printer.	
Document Scanner	Any scanner with TWAIN-compatible drivers, such as Canon DRC225 or ScanSnap ix1600	If you don't have a scanner you would need to file documents in your office. Without a way to get documents in an electronic format you would not be able to add documents to the patient's chart in Epic.	

Barcode Scanner	A USB or wireless barcode scanner that can read either 1D or 2D barcodes.	- If you don't have barcode scanners at workstations where you see a patient or perform any medication preparation, you will need to manually confirm collecting a specimen, administering a medication in clinic, documenting immunizations, and a variety of other workflows. - Impact to end users will vary based on expected workflows of what is performed in clinic. - NL Health Services overall went with the Zebra models DS8108 for wired scanners and DS8178 for wireless barcodes scanners. The general strategy is if the barcode scanners are in a patient room or procedural area, they are wireless, then if in an area a patient would never be are wired.	
Wristband Printer	Dedicated wristband printer compatible with ZPL, EPL, or IPL printer languages. - OR - Document printer with a combined label/wristband stock	- Only required if your patients are being seen in a bed or chair instead of an exam room, such as oncology or non-oncology infusion appointments, or dialysis appointments. NL Health Services has overall gone with the Zebra ZD510-HC. - If you only have the tray of labels, it should have space for a wristband as well. This may not be cost effective, as you will use a full sheet of labels per print. - Impact to end users would be compounded if you don't have a dedicated wristband printer AND have a single tray document printer.	
Webcams	Any webcam recognized by Microsoft Windows. Additional Detail: Patient Photo Cameras	- If you don't have a webcam you'd be unable to take pictures for chart at front desk. - Video visits could be performed on personal devices.	
E-Signature Pads	Topaz devices or paired Welcome devices (NL Health Services is overall using iPads for these Welcome Devices). Additional Detail: E-Signature Pads	- Without e-signature pads patients could e-sign consents with a mouse, or via a touchscreen if equipped. - Print, scan, & sign if no e-sign ability - NL Health Services is using the Topaz T-LBK462-BSB-RC for most of their e-sig pads, and a Welcome iPad for procedural areas.	

Dictation Microphones	Microphone compatible with Dragon attached to workstation - OR - Dragon Mobile using iOS or Android smartphone	- Without these tools you'd use Epic SmartTools and templates to write your notes. - NL Health Services is overall using PowerMic Philips LF3510s for these, but any mics that are compatible with Dragon will be fine.	
Fixed Endpoint Workstation	PC with Windows 11 or newer - OR - Thin Client Device compatible with Citrix Workspace App Additional Detail: Endpoint Devices	- Epic software will be accessible through the Citrix Workspace App. The device must be compatible with the most recent LTSR release of Citrix for Windows or equivalent version for alternative OS devices. - Endpoints requiring integration with USB peripherals should be Windows PCs to maximize compatibility.	
Monitor	23-25" monitor capable of 1920x1080 resolution or better Additional Detail: Monitors	If you use a smaller screen, you will have more scrolling to see the data needed to complete a visit as Hyperspace was designed to be used on a widescreen monitor.	
Laptop Computers	PC with Windows 11 or newer - OR - Another laptop compatible with Citrix Workspace App Additional Detail: Endpoint Devices	- Use in areas without fixed endpoint workstations. - The smaller screen may require additional clicks to complete workflows. - Patient exam room workflows will not use the Secure user switching workflow and will require each clinician to select the patient's chart upon entering the room	
Welcome Tablets	Welcome Mobile: - Apple iPad Mini or larger - iOS version 17 or greater Welcome Windows: - Intel Atom Z2760 1.8GHz or better 4 GB RAM 10-inch screen or larger, touch-capable 1024x768 resolution or better	- Without tablets, users lose access to mobile workflows for patients and providers. Some impacted areas are: check-in will have to be done on MyChart or at the front desk, consents will have to be signed using an e-signature pad or on paper. - Overall, NL Health Services plans to use iPads for this effort.	

	Additional Detail: Welcome Tablets		
Credit Card Devices	Any encrypted device supported by your payment processing gateway (e.g., Ingenico Lane 3000) Additional Detail: Credit Cards	- Without a credit card device, you will not be able to process credit card payments. - If you are interested in integrated electronic payments, talk to the Epic team.	
Personal Smartphones & Tablets	Android or iOS devices to access: - Haiku - Canto - Multifactor authenticator Additional Detail: Canto, Haiku, and Limerick	Without a smartphone you will not have access to Haiku for mobile workflows, multifactor authentication challenges for login, or dual authentication workflows.	
Internet Connectivity	Bandwidth: >60 Kbps per concurrent user Latency: <150ms to St. John's Area (specifically the Allendale Data Center) Additional Detail: Client Traffic Analysis Network Latency	When accessing Epic via Citrix Workspace App, you can achieve acceptable end user response times with up to 150ms of network latency.	
BCA Bundle	Fixed workstation or laptop running Windows 11. Locally attached (USB) printer capable of high-volume printing (about 15 pages per minute black and white or higher). At least 30 minutes of backup power for both workstation and printer.	- Without a BCA PC that is connected to emergency power, clinics must either: - Be outpatient walk-in only with no scheduling, or - Provide documented policy that the clinic will close during all CorCare outages. - For clinics that choose to implement CorCare BCA, NLHS is overall using the Inkjet Canon GX5120 for this, plus a UPS (TrippLite Omni1500LCDT) wherever there is no emergency power present.	

	Additional Detail: BCA PC Recommendations		
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