

### Defining EHR System Requirements

The number, variety and complexity of EHR systems in today's market has made the search for a system complex and somewhat daunting unless an organized, systematic process is used. A successful EHR system evaluation and selection process begins with establishing a thorough and consistent vision of the "perfect" EHR system for your practice, including features, functions, technical tools, reporting abilities, integration with other systems, etc. Once you are clear on what precisely you are looking for, it will be far easier to find.

The following tips can help your practice think through and prioritize your needs and expectations for an EHR system and easily recognize the best possible system when you see it:

#### 1. Know What You Are Looking For Before You Begin Shopping

While it is fun to window shop at trade shows and conference vendor exhibits, these environments should be used as opportunities to "get ideas" for your practice and learn about new technology options rather than make a system choice. Perusing healthcare technology exhibit halls with vendors anxiously highlighting the many "bells and whistles" of their systems will quickly overwhelm most individuals seeking an EHR system. This approach will definitely add significantly to your fear of picking the *right* system from the myriad of choices.

If, however, before beginning to evaluate the system options available, you have developed a very clear idea of the most critical aspects and features needed by your practice, and have come prepared with a well defined checklist to help keep you focused on priorities, the many options before you will quickly begin to thin out as viable products for consideration, and the better solutions that address your needs will emerge from the crowd.

#### 2. Clearly Establish the Goals You Expect the System to Support

What specifically is your practice hoping to gain from implementing an EHR system? Practices seek to purchase and implement EHR systems to address a number of key clinical and operational needs and goals including improved efficiency, reduced medical errors, improved patient care, increased reimbursement, etc. Individuals within the practice will undoubtedly have varying perspectives on which goals are most critical. Since these perspectives will drive each individual's EHR system preferences, it is important to establish consistency of view before moving forward with system evaluation. Facilitating open discussions and establishing consensus among all areas within the practice as to specific gains your practice plans to achieve from use of an EHR system will set the foundation for defining the specific functions and features needed to support the envisioned gains.

#### 3. Plan New Workflows and Clinical Processes

Using your overall goals as a guideline, an extremely valuable exercise for the practice would be to spend adequate time "envisioning" how the practice could meet these goals through automation. Imagine your practice with an absence of paper charts, forms, and manual processes. Walk through the many clinical and operational tasks that make up the day-to-day activities of your practice, taking careful note of critical information, triggers, flags, etc. that are included in paper documents. The specific requirements for your new EHR system will need to address automated solutions for capturing and communicating this information.

When envisioning EHR system use and redesigning work processes, you will want to address all tasks where paper charts are currently referenced or updated. These activities and tasks commonly include:

- Routine Visits (from the point of check-in to completion of the visit)
- History and Physicals
- Urgent/Same Day Visits
- Walk-in Patients
- Emergency Patients (both within the office and at emergency rooms)
- Routine Patient Telephone Calls
- Emergency Patient Telephone Calls
- Prescription Orders
- Prescription Refills
- Laboratory Orders
- Radiology Orders
- Back Office Orders
- Referral Requests
- Documentation Requiring Physician Sign-off
- Nurse Only Visits
- Patient No Shows with Provider Follow Up
- Results Reporting and Patient Follow Up-Non Critical
- Results Reporting and Patient Follow Up-Critical
- Chronic Care Service Tracking and Recall
- Preventative Health Tracking (e.g., Mammograms, Pap Smears, etc.)
- Disease Collaborative Reporting
- Compliance Reporting

Carefully thinking through and planning how, ideally, each of these tasks would be accomplished using an EHR will help you to identify optimal organization and flow of screens, needed template content, output formats, interfaces, alerts, and external access requirements.

#### **4. Document Your EHR System Functional & Integration Requirements**

Based on your goals for the system, specific features and functions of EHR systems will be more important to your practice than others. As examples:

<b>If Your Practice is Focused on:</b>	<b>Emphasize These EHR Capabilities:</b>
<p><b>Improved Clinical and Operations Efficiency</b></p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Strong integration with practice management data and processes</li> <li><input type="checkbox"/> Flexible electronic interfacing for outside entities</li> <li><input type="checkbox"/> Efficient on-line charting features and tools                             <ul style="list-style-type: none"> <li>• Custom templates &amp; flows</li> <li>• “Smart” clinician preference lists that evolve through</li> </ul> </li> </ul>

If Your Practice is Focused on:	Emphasize These EHR Capabilities:
	<p>system use</p> <ul style="list-style-type: none"> <li>• Flexible input methods (e.g., voice recognition, touch screen, handwriting recognition, etc.)</li> </ul> <ul style="list-style-type: none"> <li><input type="checkbox"/> Organized clinician “in-boxes” with priorities and reminders</li> <li><input type="checkbox"/> Direct integration with diagnostic &amp; other clinical equipment (e.g., electrocardiogram, pulse oximetry, etc.)</li> <li><input type="checkbox"/> On-line, direct access to Web-based reference data</li> <li><input type="checkbox"/> Intra-office messaging</li> <li><input type="checkbox"/> Bar coding/OCR/RFID integration</li> </ul>
<b>Reduction in Medical Errors</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Clinical rules databases with alerts</li> <li><input type="checkbox"/> E-prescribing with full interaction checks and alerts</li> <li><input type="checkbox"/> Dosing algorithm support</li> <li><input type="checkbox"/> Order/testing integration with clinical rules, treatment history and directives</li> <li><input type="checkbox"/> Direct access to medical reference data and protocols</li> </ul>
<b>Improved Patient Care</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Preventive and chronic care alerts/reminders</li> <li><input type="checkbox"/> Clinical rules and alerts (see Reduction in Medical Errors above)</li> <li><input type="checkbox"/> Disease registry capabilities and/or integration</li> <li><input type="checkbox"/> Missing results reminders</li> <li><input type="checkbox"/> Direct access to medical reference data and protocols</li> <li><input type="checkbox"/> Patient correspondence reminders &amp; Education Materials (email, paper)</li> <li><input type="checkbox"/> Population health analysis</li> </ul>
<b>Increased Revenue</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Intelligent E&amp;M coding assistance based on charted care</li> <li><input type="checkbox"/> Patient population service analysis to target preventive and chronic care reminders</li> <li><input type="checkbox"/> Direct billing interface</li> <li><input type="checkbox"/> Efficiency features (see above) that will reduce paperwork and allow more patients to be seen</li> <li><input type="checkbox"/> Insurer rule integration (e.g., benefit limitations, authorization requirements, delivery networks)</li> </ul>
<b>Improved Access to Information</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Remote access to full medical records</li> <li><input type="checkbox"/> Wireless tools for greater mobility</li> <li><input type="checkbox"/> On-line, direct access to Web-based reference data</li> <li><input type="checkbox"/> Integration with hospital and other affiliate systems</li> <li><input type="checkbox"/> Full email integration</li> </ul>

If Your Practice is Focused on:	Emphasize These EHR Capabilities:
	<input type="checkbox"/> Scanning integration
<b>Reduced Costs</b>	<input type="checkbox"/> Full medical record support (total elimination of paper chart) <input type="checkbox"/> Simplified charting tools for elimination of transcription <input type="checkbox"/> Full integration with practice management system to avoid duplicate entry of data <input type="checkbox"/> Bar coding/OCR/RFID integration
<b>Competitive Advantage</b>	<input type="checkbox"/> Flexible integration with a wide range of external entities (e.g., hospitals, labs, pharmacies, etc.) <input type="checkbox"/> Easy data extraction and electronic submission (e.g., disease collaboratives, Medicare studies, etc.) <input type="checkbox"/> Pay for performance benchmark analysis <input type="checkbox"/> Patient data access features <input type="checkbox"/> Patient education and email communication abilities <input type="checkbox"/> Effective recall/reminder capabilities

Many EHR feature checklists are available via medical association, healthcare industry, and vendor websites. These should be used to help you think through the specific capabilities you are expecting from the system.

Data integration with your practice management system and electronic interfaces with other internal systems and external vendors/organizations need to be carefully considered. These integration/interface capabilities will be mandatory to obtain efficiency gains within your practice.

## 5. Define the Technical Needs to Support the EHR System

Numerous EHR technology and device options are available on the market. Clinicians will all have varying preferences, and detailed analysis will be needed to determine which will work best for your practice needs and EHR goals. Technical requirements should include the following areas:

- Operating systems and databases (e.g., Windows, UNIX, SQL, Oracle, Sybase, etc.)
- Display and capture devices (e.g., laptops, pen tablets, PDAs, wall mounted screens, etc.)
- Charting support (e.g., voice recognition, handwriting recognition, keyboards, etc.)
- Networking (e.g., cabling, wireless, Web-based, remote access capabilities, etc.)
- Reporting tools
- Security controls

## 6. Define Your Vendor Support and Performance Expectations

Regardless of robust system functionality and state-of-the-art technical tools, an EHR system is only viable if the vendor supporting the system is equally viable and willing to provide quality support to your practice.

The current volatile vendor market makes it extremely important to ensure that your vendor has a likely long-term future. Defining your expectations for a viable vendor in terms of size (both

financially and organizationally), breadth of client base, depth of experienced resources, etc., will help you narrow system options to vendors you feel comfortable will be around to support you through many years.

Also, clearly defining your expectations for implementation support, on-going customer support, system enhancements, and overall vendor and system performance will help set a standard against which potential vendors can be measured. Vendors unwilling to commit to implementation timelines and other specific support performance standards should quickly be dropped from consideration.

## **7. Set Your Priorities**

After all requirements are fully defined, it is important to go back and purposefully evaluate which capabilities are most critical to your practice and which are “nice to have” or needed sometime in the future. While it is important to evaluate vendors according to your full list of requirements, you do not want to rule out a strong vendor who may not fully meet some of your lower priority needs. You also do not want to rule out a vendor who may be in the process of developing some capabilities that are not part of your initial needs, but rather a feature you plan to implement at a later date. Availability of “in development” capabilities can be fully specified and included as guaranteed deliverables in your vendor contract.

The requirements list developed from these planning and definition activities should become your standard against which all vendors and systems are carefully and consistently measured. The criteria defined can be compared to any number of unbiased published industry evaluations of EHR systems/vendors to help you narrow your evaluation efforts to only the most likely contenders for your practice.