Implementing a Point-of-Care Registry

Help your practice to proactively manage patients with chronic conditions.

CME CREDITS: 0.5
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How will this module help me successfully implement a registry?

1. Five STEPS to develop and implement a registry
2. Answers to common questions about registries
3. Tools to develop training materials and track progress
Increasing administrative responsibilities—due to regulatory pressures and evolving payment and care delivery models—reduce the amount of time physicians spend delivering direct patient care. Point of care registries are systems to identify, track, and care for people with chronic conditions in practices. They can be integrated into a practice’s electronic health record (EHR) as well. These point of care registries will be very important going forward, especially as care coordination becomes more valued in health care.

**Implement a point of care registry**
**Release Date: March 2016**
**End Date: March 2019**

**Objectives**
At the end of this activity, participants will be able to:
1. Choose the criteria for your registry
2. Build the registry framework
3. Develop workflows and train the team
4. Evaluate registry findings to quality improvement efforts in your practice

**Target Audience**
This activity is designed to meet the educational needs of practicing physicians.

**Statement of Need**
POC registries can be extremely useful for managing common chronic illnesses, such as diabetes or coronary artery disease, tracking “high risk-high needs” patients and in assuring that preventive services are delivered to all patients in a timely manner according to evidence-based medicine (EBM) guidelines. When complete, your practice’s POC registry system will be a tool to create a customized, planned visit protocol for a patient at the visit and for outreach between visits. This module will help clinicians put these registries together and put them into action in their practices.

**Statement of Competency**
This activity is designed to address the following ABMS/ACGME competencies: practice-based learning and improvement, interpersonal and communications skills, professionalism, systems-based practice and also address interdisciplinary teamwork and quality improvement.

**Accreditation Statement**
The American Medical Association is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

**Credit Designation Statement**
The American Medical Association designates this enduring material for a maximum of 0.5 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**Claiming Your CME Credit**
To claim AMA PRA Category 1 Credit™, you must 1) view the module content in its entirety, 2) successfully complete the quiz answering 4 out of 5 questions correctly and 3) complete the evaluation.

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**About the Professional Satisfaction, Practice Sustainability Group**
The AMA Professional Satisfaction and Practice Sustainability group has been tasked with developing and promoting innovative strategies that create sustainable practices. Leveraging findings from the 2013 AMA/RAND Health study, “Factors affecting physician professional satisfaction and their implications for patient care, health systems and health policy,” and other research sources, the group developed a series of practice transformation strategies. Each has the potential to reduce or eliminate inefficiency in broader office-based physician practices and improve health outcomes, increase operational productivity and reduce health care costs.

**Disclosure Statement**
The content of this activity does not relate to any product of a commercial interest as defined by the ACCME; therefore, neither the planners nor the faculty have relevant financial relationships to disclose.

**Media Types**
This activity is available to learners through Internet and Print.

**Hardware/software Requirements**
Adobe Flash 9.0.115 or above
Audio speakers or headphones
Screen resolution of 800X600 or higher
MS Internet Explorer 8.0 or higher, Firefox, Opera, Safari, etc.
Adobe Reader 5.0 or higher

**References**


A point-of-care (POC) registry is a system to identify, track and care for people with chronic conditions and to track preventive care in your practice. It can be integrated into your practice’s electronic health record (EHR), or it can be a separate database program or even a simple spreadsheet that is manually updated. POC registries can be extremely useful for managing common chronic illnesses, such as diabetes or coronary artery disease, at the population level. They can also help your practice track high-risk, high-needs patients and ensure that services are delivered to all patients in a timely manner according to evidence-based medicine (EBM) guidelines. When complete, your practice’s POC registry system can be used to create customized, planned visit protocols for each patient visit and for outreach between visits.

*As a general guideline, most practices should not be creating clinical performance measures. This process takes expertise, time and expense. Instead practices should use National Quality Forum endorsed measures or nationally recognized measures such as the Centers for Medicare and Medicaid Services Physician Quality Reporting System or now the Merit-Based Incentive Payment System (MIPS) measures.

Five STEPS to creating a point-of-care registry for your practice:

1. Brainstorm the criteria for your registry
2. Build the registry framework
3. Develop workflows and train the team to use the registry
4. Put your registry into action
5. Evaluate and apply registry findings

Evidence-based medicine (EBM): Evidence-based medicine (EBM) uses clinical research and expert opinion to make recommendations about the best treatment for patients with a specific condition. Select quality measures from well-established sources. There is no need to create your own. Be sure to include any measures that payers in your market have attached to quality incentives.*
Brainstorm the criteria for your registry

Registries take work, especially during the launch and piloting phases. It’s critical to have the entire care team (including non-clinical staff and support staff) on board with developing and maintaining the registry. Take the opportunity to engage your entire practice during the brainstorming session to determine what an effective registry will look like. The non-clinical staff and support staff can be an integral part of developing the infrastructure of the actual registry; once it has been developed, these staff members may be the ones running the reports on a regular basis and it will be important for them to be intimately familiar with its design.

DOWNLOAD Registry brainstorming guide

To be effective, POC registries must fulfill five criteria:

- Provide a list of all the patients in the practice with the target condition(s) (e.g., diabetes, asthma, hypertension, etc.)
- Show a “snapshot” of the EHR to detail important clinical parameters and identify the gaps in EBM-recommended care
- Aggregate the results from all patients in the practice with the specific condition to assess the overall quality of care provided, such as the percentage of patients with diabetes who have their blood pressure controlled
- Produce support for outreach and follow-up (e.g., easily identify all patients with diabetes who have not had an eye exam or who are not taking aspirin).
- Integrate clinical quality reporting into the process of care and rather than as a separate endeavor

Ensure you have sufficient support of a medical assistant (MA) or nurse to return phone calls, make appointments, update medication lists, etc.

Additionally, for any registry system, it is important to ensure that patient confidentiality and data security requirements are adequately addressed.

Q&A

What can I monitor with a POC registry?

Your practice should start with one or more chronic conditions that are commonly seen in your patient panel and have well-developed EBM guidelines and established clinical performance measures. Examples include:

- Diabetes
- Hypertension
- Asthma
- Coronary artery disease
- Chronic obstructive pulmonary disease (COPD)
- Attention deficit hyperactivity disorder (ADHD)
- Depression

You could also use a POC registry to monitor preventive services such as age-appropriate screenings and immunizations, and to track social determinants of health.
Can I use a POC registry for following high-risk patients?

A single POC registry system can also be used to track and follow up with patients who have been identified as high-risk and high-needs. This represents a more patient-centered approach rather than a disease-specific registry and can be very useful to support care managers, care coordinators and/or a care transitions team as they follow the sicker patients in your practice. It is important to coordinate and interface with the care managers of patients who are already receiving other care coordination services in order to integrate the care into your registry.

How can I include multiple conditions in my POC registry?

It is recommended to only expand to include multiple conditions in your POC registry after your practice has had some experience with its systems and workflow when it includes one condition; once your practice feels more comfortable with these systems, the practice can then expand the effort to other chronic conditions and preventive services over time. Use a system that will enable your practice to have an all-condition, or a patient-centered registry. This system should also display all the parameters for a patient with multiple chronic conditions and helps to identify gaps in EBM-recommended care. Almost all patients in the practice need age-appropriate screenings and immunizations as part of your preventive medicine strategy. Registries within EHR systems will eventually help track and measure the rates of these services for all patients (note, however, that many registries are being built outside of EHR systems so you need not be limited to those within EHRs).

How is a POC registry different from a national database registry?

POC registries differ from national database registries in three fundamental ways:

1. POC registries are available to the physician and care team during any type of patient encounter to show the current status and highlight gaps in EBM care parameters.
2. The POC registry information is part of the regular office workflow.
3. POC registries can be designed to feed data into national databases, but the current constructs used by most national database registries limit their ability to feed data in real time.

Most national database registries are designed to collect data, establish useful comparisons and provide reports back to practices at some regular interval. Comparison data is necessary to evaluate how your practice is doing relative to other practices with similar patient demographics and risk profiles. Some national registries now offer patient-level management dashboards with clinical utility, such as the American Board of Family Medicine’s PRIME registry.

Ideally patients should be able to see their own data in the POC registry, either provided via an online portal, mailed to them before their visit or given to them at the visit.

Build the registry framework

Select a POC registry system that best fits with your current EHR, target patient populations and practice workflows. Your program should include all the clinical parameters that you rely on to make informed medical decisions. These parameters need to be presented in an organized and complete format, allowing you to focus on those aspects of care that need the most attention. You may consider using a generic registry template within your EHR or developing a custom version with a programmer. It should be noted that working with your EHR vendor to create the registry, as opposed to developing or buying a separate system, may help avoid workflow problems and separate log-ins.
What are some examples of POC registry systems I could use or purchase?

Many EHRs have modules for a registry function that are either not installed or not turned on. Depending on your vendor, you may have access to one of these modules (e.g., eClinicalWorks), listed as “population health management” (e.g., Phytel and NextGen) or included under “data analytics.” Be sure to check with your EHR vendor and evaluate the registry functionality against the list of five criteria above. Working with the EHR vendor is generally preferable to building a separate registry, given that it will be built into the existing workflow of the EHR that your practice is already familiar with. If a module is not available through your EHR, then stand-alone registries are available for a fee. The three basic components of stand-alone registries are:

1. A database to store patient information. This includes a server, database management software and management tools.
2. A data model to organize and integrate information.
3. Software tools that allow users to sort, manipulate and create views and reports from the information.

You may purchase each of these components individually to create a stand-alone registry or you may purchase them as a package. You may also choose to use a simple spreadsheet. No matter what approach you choose, you should make sure that it is fully integrated into your practice workflow.

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What searchable fields do I need to include in the POC registry program?

Keep it simple. In addition to the usual demographic data to identify and contact the patient, you only need to include the clinical parameters you and other care team members would want to know to make an informed decision about care.

For example, if you are setting up a diabetes registry, you will want searchable fields for:

- body mass index (BMI)
- HbA1c
- lipid levels
- blood pressure
- blood pressure control (angiotensin-converting enzyme inhibitor/angiotensin II receptor blocker [ACE/ARB] use)
- kidney function (microalbumin, eGFR or creatinine)
- aspirin use
- smoking status
- dates and results of dilated eye exams
- dates and results of foot exams
- influenza and pneumococcal vaccines

These are the same searchable fields required to calculate most of the clinical performance measures that may need to be reported to payers and CMS and for maintenance of certification (MOC) part IV activities. Keep in mind that the fields must conform to electronic Clinical Quality Measures (eCQMs) in order to suffice for Physician Quality Reporting System (PQRS) and Merit-Based Incentive Payment System (MIPS) reporting.
Who sets up the POC registry?

Designate a small work group to investigate the available options, the costs and the functionality. While the entire care team will contribute to the registry, these specific team members will spend the most time working with the system or software. This group may also help design a workflow and formalize the procedures, roles and responsibilities for the use of the registry. Data entry should be automated wherever possible, so integration with your EHR is important to reduce duplication of work. For example, lab test results or blood pressure readings from the EHR should automatically show up on the patient summary page of the registry with a visual cue about the result being in or out of range. There may be some manual tasks or set up, such as at the time of entry of a new patient in the registry.

How do I get started assembling the list of patients with a specific condition?

All patients who have the specific condition should be added to the POC registry; as patients come in or as a new diagnosis is made, make sure they are added or that their profile is updated. As the registry grows, it will become more useful for monitoring EBM care and facilitating outreach.

You may choose to collect information in a spreadsheet until you have selected a software package or if you do not have an EHR system in your practice. Your team may find that it is more comfortable starting with a spreadsheet and then moving to the registry function in the EHR.

DOWNLOAD Point of care registries tools

What does a POC registry dashboard look like?

The home screen for a typical registry dashboard often contains tabs for each condition you are tracking. This information may be presented for the patient panel of each individual physician in the practice or for the practice as a whole. The examples provided below are from the Forward Health Group registry software.

Within each condition, there are tabs for patients, measures, data entry and review. Figure 1 shows the hypertension patient screen for a single physician in a practice.

Figure 1. Hypertension patient panel included in a sample POC registry
This view provides filtered results of patients whose results are out of range. This makes it easy for you to see which patients need intervention based on these results. Figure 2 depicts the screen of sample patients with out of range results in the registry for the panel above.

Figure 2. Snapshots of patients with out of range results in a sample POC registry

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Figure 3 shows a summary of all patients with diabetes in the POC registry. Note that only 28 percent of the patients in this practice have their A1c under 7 (which is the goal for this practice). These findings may trigger the practice to initiate a quality improvement cycle using Plan Do Study Act (PDSA) methodology to improve these results.

Figure 3. Snapshot of diabetes measures for an entire practice

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If your practice is starting out with a basic Excel spreadsheet as a POC registry, this is a good example of what a registry document might look like.

DOWNLOAD Example of a POC registry

3 Develop workflows and train the team to use the registry

Involve the entire care team to keep the POC registry up to date and complete. Develop new workflows or adapt existing workflows to ensure that the data is properly and reliably entered. Establish how clinical and clerical staff should use the registry to follow up on gaps in care and how to plan for visits to ensure that gaps are closed and timely care is provided. The entire team should have access to the registry and be able to use protocols and standing orders to identify and address patient care needs. Designated staff, such as physicians, nurses, MAs, care managers or panel managers, should be well trained in executing their role in managing the registry to improve data reliability, consistency of care and outcomes for patients.

Q&A

What kind of training should the team receive to make sure data in the POC registry is accurate and reliable?

Ideally, one or two individuals (preferably two) in the practice should be trained in registry implementation, maintenance and daily integration into the workflow. If you are using an EHR-based registry, your vendor should offer training. You may find additional registry training as part of population health and care coordination curriculums. These two “registry specialists” should be responsible for then sharing their knowledge with everyone on the practice team. Much of the training will involve educating the care team about where information from the EHR flows into the registry, so that the data is as accurate and complete as possible. There may be some manual tasks in the initial set-up process or at the time of entry of a new patient into the registry for more information about using a registry to improve care, see the panel management module.

How can I incorporate the POC registry into my existing workflows to maximize the impact?

Implementing a POC registry is just one of many systematic changes you can make to improve practice efficiency and effectiveness. Look to other STEPS Forward™ modules as you consider the design and implementation of your registry, as there may be some overlap and synergies in workflows. Think about how it might integrate with or facilitate pre-visit planning, expanded rooming and discharge, panel management and risk-stratified care management. The combination of these approaches with the registry should yield efficient, comprehensive and effective care for patients with chronic conditions.

4 Put your registry into action

When implementing your new POC registry, your practice may want to start by focusing on just one patient population, such as your patients with diabetes. Use a phased approach to allow the team to adapt to the POC registry and the new workflows to manage care between visits.
Q&A

Who maintains the registry?

Although one or two people should be responsible for making sure the registry is working properly and used by all, every care team member should contribute to its maintenance by entering information when missing fields are identified. The more complete the information, the better it works.

Evaluate and apply registry findings

In addition to providing more efficient and effective care for your patients with chronic conditions, registries can help with quality improvement efforts. For example, if you learn from the registry that only 50 percent of your diabetic patients have their blood pressure under control, you could make changes in your treatment approach to initiate a health coaching program or pursue a more active follow-up approach with these patients. The registry can then be used to track whether or not these process changes actually improve the percentage of patients whose blood pressure is under control. Depending on the sophistication of your POC registry, you could generate the following types of reports to improve your practice:

- Patient reports at the time of the visit
- Exception reports to flag patients not meeting management targets
- Progress reports for staff and providers to measure care delivery
- Population reports to monitor and stratify at-risk patients

Q&A

How do I make sure our POC registry is adaptable and sustainable to meet ever-changing practice and payer standards?

As your practice starts to feel comfortable with the existing registry, let your patient population and practice priorities guide expansion to include another chronic condition. The registry function is basically the same regardless of the sub-population, so adding another common chronic condition (or two) should be easier. If clinical performance measures change or more measures are added by regulators or payers, you will need to actively manage the modifications in the parameters you track or the acceptable ranges that you set in the system (for instance, if measures are decertified by PQRS or CMS).

Doesn’t the POC registry just add more work for everyone? What is the advantage?

Initially yes, but your practice may soon see a return on the investment. A well-functioning registry can reduce the amount of digging you have to do to identify what EBM care your patients need. Some of the advantages of a properly implemented system that meets all five criteria identified above may include:

- A more even distribution of work across the care team
- A better practice workflow
- Engagement of the entire team because everyone can update and view the registry
- Active participation in patient care by the entire team through use of standing orders and established protocols
- Elimination of data gathering activities by the physician during the patient visit
• Clear presentation of clinical parameters that are out of range so that the physician and team can focus on the areas that need the most attention
• Potential revenue capture for pay-for-performance or other value-based payment models
• Less chaotic care for the patients and an improved patient experience

Some of these advantages are illustrated in the diabetes and asthma point-of-care process maps included in the module Toolkit.

Conclusion

A POC registry can allow you to be proactive rather than reactive in your approach to providing care to patients with chronic conditions, including preventive care. This organized approach to tracking and reporting specific disease measures and management will help you and your practice team reveal opportunities for improvement and the delivery of better and more efficient care to your patients.
To demonstrate completion of this module and claim AMA PRA Category 1 Credits®, please visit:

www.stepsforward.org/POCregistry

Get implementation support

The AMA is committed to helping you implement the solutions presented in this module. If you would like to learn about available resources for implementing the strategies presented in this module, please call us at (800) 987-1106 or click here to send a message to StepsForward@ama-assn.org

References