The Office of the National Coordinator for
Health Information Technology

Clinical Decision Support/Quality Improvement Worksheet - Ambulatory

Template (Essential Version)

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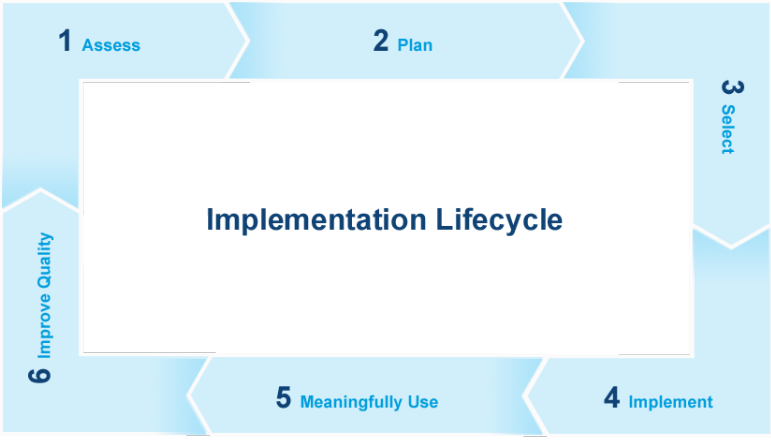
The Office of the National Coordinator for
Health Information Technology



DESCRIPTION & INSTRUCTIONS

This tool is intended to aid providers and health IT implementers in documenting and analyzing current approaches to specific quality improvement targets and plan enhancements.

Quality improvement (QI) efforts should be based on evidence-based guidelines related to the target. The EHR vendor, REC, specialty society, guidelines.gov and other resources can help identify these guidelines and ensure that order sets, documentation templates, flowsheets, and other QI tools support implementation.

Step 1: Document the target and think about pertinent information flows and workflows.

Step 2: Think about major activities that influence performance on the target at each care flow step. Document these on the subsequent pages. After listing these activities, think about and document potential enhancements.

Step 3: Review all entries and summarize them in the table below the flowchart on the next page.

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1 Ambulatory CDS/QI Worksheet (Essential Version)

Target	
Current Performance on Target	

Reset Fields (all pages)

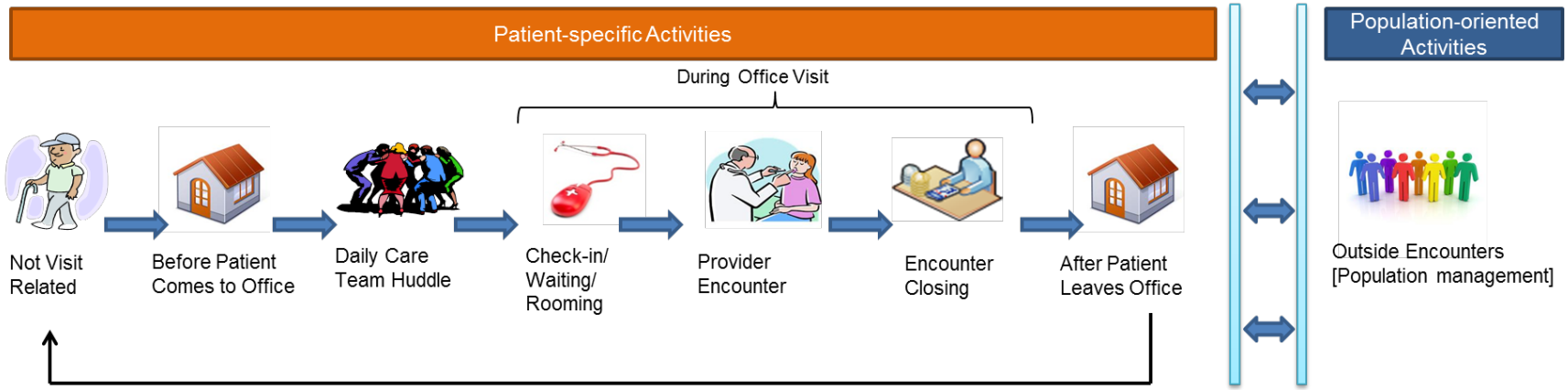

Exhibit 1 CDS/QI Approach Summary

	Not Visit Related	Before Patient Comes to Office	Daily Care Team Huddle	Check-in/ Waiting/ Rooming	Provider Encounter	Encounter Closing	After Patient Leaves Office	Outside Encounters [Population management]
Current Information Flow								
Enhancements								

1.1 ACTIVITIES THAT OCCUR WITH SPECIFIC PATIENTS

Note: population management activities, e.g. Registry use, belong in activities that relate to population management.

1.1.1 These activities occur when the patient is not in the office

Not Visit Related	**Description:** Not related to a patient's visit to the office/clinic or just before or after that visit.
Current Information flow	
Potential Enhancements	

Before Patient Comes to Office	**Description:** After a patient has an office visit scheduled but before they arrive for that appointment.
Current Information flow	
Potential Enhancements	

1.1.2 These activities occur when the patient is in the office

Daily Care Team Huddle	**Description:** Provider team preparations for all patient visits scheduled for the day
Current Information flow	
Potential Enhancements	

Check-in/ Waiting Rooming	**Description:** After patient checks in, before encounter with clinical team
Current Information flow	
Potential Enhancements	

Provider Encounter	**Description:** Main encounter with Provider
Current Information flow	
Potential Enhancements	

Encounter Closing	**Description:** After main provider encounter, but before patient leaves the office
Current Information flow	
Potential Enhancements	

1.1.3 These activities occur after a patient leaves the office

After Patient Leaves Office	**Description:** The particular encounter has concluded and the patient is no longer in the office
Current Information flow	
Potential Enhancements	

1.2 ACTIVITIES THAT RELATE TO POPULATION MANAGEMENT

Outside Encounters	**Description**: Activities focused on the entire patient panel
Current Information flow	
Potential Enhancements	

2 Hypertension Example

This worksheet describes the CDS configuration for blood pressure control for patients with a BP greater than 140/90, implemented by Dr. Christopher Tashjian and colleagues at Ellsworth Medical Clinic.

Target	Achieve better blood pressure (BP) control in patients with BP greater than 140/90.
Current Performance on Target	As of December 2012, 90% of patients diagnosed with hypertension, diabetes or stroke have their BP controlled to within the target range.

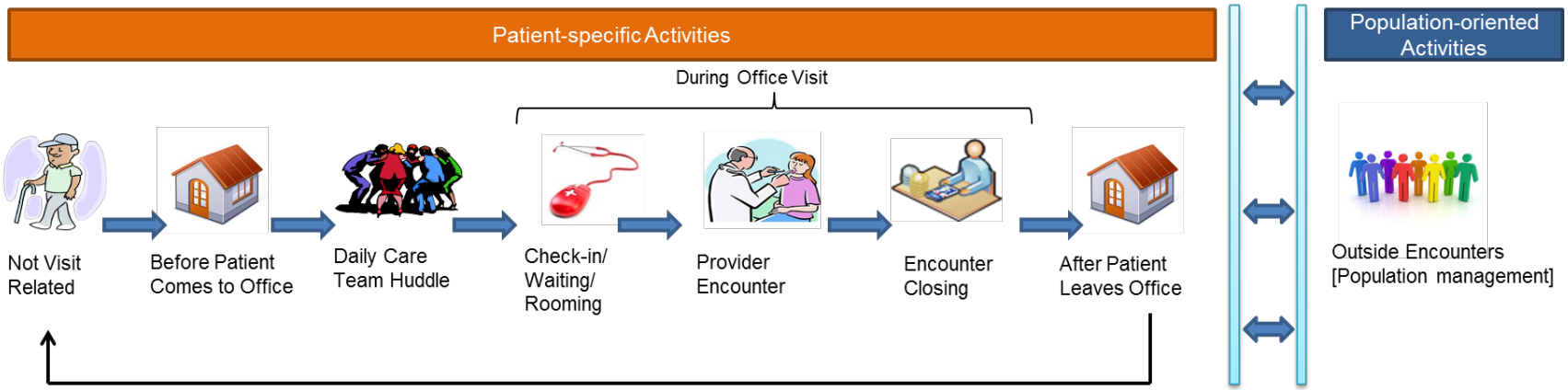

Exhibit 2 CDS/QI Approach Summary

	Not Visit Related	Before Patient Comes to Office	Daily Care Team Huddle	Check-in/ Waiting/ Rooming	Provider Encounter	Encounter Closing	After Patient Leaves Office	Outside Encounters [Population management]
Current Information Flow	Seek opportunities to identify need to check and control BP when patient contacts office outside of provider visits.	Use pre-visit planning sheet to highlight needed interventions.	Pre-assemble data needed for decision making during the visit, and tee up needed interventions.	Gather and document key BP-related patient data, flagging elevated BP's for heightened attention.	Use EHR filters and templates to help highlight and document key hypertension-related data, and other EHR tools to support ordering and patient education.	Recheck elevated BPs and activate protocols to ensure appropriate patient and staff follow-up and action after the visit.	Use protocols to ensure that follow-up BPs, lab results, and follow-up provider visits are addressed as appropriate. Leverage patient portal.	Generate lists of patients not at BP goals, and execute protocols for corrective actions.
Enhancements	Greater use of management protocols.	Leverage patient portal better.	Enhance huddle logistics to include Care Coordinators (CCs) in visits.	Enhance medication reconciliation process at intake.	Make registry/patient list functionality more real-time to help provider identify and address care gaps during the visit.	Establish visit teams.	Examine and improve recall/reminder process.	Enhance BP registry function.

2.1 ACTIVITIES THAT OCCUR WITH SPECIFIC PATIENTS

Note: population management activities, e.g. Registry use, belong in activities that relate to population management..

2.1.1 These activities occur when the patient is not in the office (see below for activities "After Patient Leaves Office")

Not Visit Related	**Description:** Not related to a patient's visit to the office/clinic or just before or after that visit.
Current Information flow	Identify and address patients needing BP visits or lab work when they call for med refills. Do BP checks at all ***lab*** visits if the patient had a previous elevated BP. Provide patient portal to help patients reach the practice. When a patient requests a medication refill and is due for a visit or lab work, a "return to clinic" order is generated. This triggers reminders in the EHR and outreach to patients by CCs.
Potential Enhancements	Make broader use of medication titration protocols when blood pressure increases are discovered outside provider visits (e.g., during lab visits).

Before Patient Comes to Office	**Description:** After a patient has an office visit scheduled but before they arrive for that appointment.
Current Information flow	The day before a patient office visit (or same day if same day visit), patient record is reviewed by a CC or Medical Assistant (MA) for necessary services related to chronic or preventive needs based on documented care plan. After reviewing EHR record, MA indicates on a paper pre-visit planning sheet what services are needed. CC reviews provider schedules and patient chart and adds to Care Plan. MA refers patients with elevated BP for heightened attention (e.g., RN medication titration per protocol) through CC pool.
Potential Enhancements	Exploring using the patient portal for "e-Visits" and to have patient-completed forms entered directly into EHR.

2.1.2 These activities occur when the patient is in the office

Daily Care Team Huddle	**Description:** Provider team preparations for all patient visits scheduled for the day
Current Information flow	the start of the day, the CC or MA reviews pre-visit planning form, and other sources (e.g., hospital EHR) focusing on: Gathering key data such as reports from recent tests, consultations, hospitalizations, ED visits. Planning/scheduling tests/treatments needed during the visit.
Potential Enhancements	CCs are working on developing ways to review provider schedules to identify patients that they have worked with so they can be in attendance at the visit.

Check-in/ Waiting Rooming	**Description:** After patient checks in, before encounter with clinical team
Current Information flow	When the patient arrives, the front desk staff updates insurance information, demographics, DOB, and other key data in the EHR, and provides patient with necessary forms for visit (e.g., health history, PHQ-9 [brief assessment for depression – which can affect care plan adherence] and assessment of alcohol use [which can affect blood pressure]). Forms are also available on practice website for patients to download before the visit. Patient education materials may be provided as indicated on pre-visit planning form. Patient completes forms and reviews educational materials while waiting for provider visit. Front desk staff scans completed forms into EHR, and makes updates into EHR practice management modules. On rooming patient, MA documents vital signs, medications, and reviews information on pre-visit planning and other forms. All patients with BP readings 140/90 or above that have magnet on door for BP recheck get BP checked again after 15 minutes by provider or MA. A protocol directs the BP recheck procedure, and includes 'return to clinic' orders for BP rechecks if BP remains elevated. Patient education material (e.g. low sodium diet) is provided if indicated on pre-visit planning form. Formal rooming process includes MA assessment for patient non-adherence to medication regimen, and documentation using condition-specific templates (including for hypertension).
Potential Enhancements	Develop process for medication reconciliation at time of visit so all between-visit encounters regarding medication changes are known to staff, provider and patient.

Provider Encounter	**Description:** Main encounter with Provider
Current Information flow	Filters in EHR and links to pertinent outside data sources (e.g., hospital EHR), facilitate provider review of key data, and documentation templates help ensure that key history and physical data are assessed and documented (e.g., interval BP labs and BP med/diet/lifestyle compliance problems). After examining patient, provider and patient jointly develop a plan of care pre-populated with options including patient education, and referrals for smoking cessation/nutritionist/cardiologist. Order sets to help ensure that needed medications, labs, etc. are ordered. Provider gives pertinent patient education information at end of visit if not already done by MA on rooming. Education materials available in both print and EHR; favorite lists in EHR speed provider and MA access to needed materials for a particular patient.
Potential Enhancements	Currently developing a database for patients with diabetes and ischemic vascular disease that will be accessible to the provider and medical assistants in the patient exam room. This database will highlight clinical data needing attention during the patient visit, thereby supplementing the population management activities where similar information is reviewed and acted upon outside of office visits.

Encounter Closing	**Description:** After main provider encounter, but before patient leaves the office
Current Information flow	At the end of visit the MA rechecks the patient's BP if it was elevated earlier. If still elevated after recheck, patient instructed to return in 1-2 weeks again for recheck as per protocol. The MA also reviews After Visit Summary to ensure patient understands and can execute care plan (e.g., lifestyle changes to help reduce BP), and assists in scheduling follow-up appointments (e.g., for additional BP rechecks – at no further charge to the patient). Orders placed for what is needed for follow up. These orders are used to place patients into reminder system. Recheck BP visit can be placed in EHR as well as a chart alert so that when it is opened it tells provider/MA that the patient needs follow up BP check.

Encounter Closing	**Description:** After main provider encounter, but before patient leaves the office
Potential Enhancements	More aggressive approaches to medication management. This includes teamwork between the care coordinator and mid-level providers in managing medication titration for hypertension (HTN) as well as lipids and tobacco use. Trial of teams including 2 providers and 3 clinical support staff (CSS). One CSS is the "intake" staff and the primary CSS for the provider is the "visit" staff. The visit staff does the pre-visit planning and discharge at end of visit including medication reconciliation and placing Return to Clinic (RTC) orders.

2.1.3 These activities occur after a patient leaves the office

After Patient Leaves Office	**Description:** The particular encounter has concluded and the patient is no longer in the office
Current Information flow	BP checks done between visits and referred to CC if elevated. CCs contact patients not at goal or who are in need of visit. Lab results reviewed and communicated to patient by CCs via phone as needed. Recall staff sends reminder letters via mail. Lab results sent via mail or patient portal in EHR. Recheck BP is also done when patient comes in the next time for lab only visit. If remains elevated, patient is referred to CC. Lab results are reviewed by the provider when they come through the lab interface.
Potential Enhancements	Intensive effort to flowchart the current Recall/Reminder process to identify barriers and opportunities to create a more robust process.

2.2 ACTIVITIES THAT RELATE TO POPULATION MANAGEMENT

Outside Encounters	**Description**: Activities focused on the entire patient panel
Current Information flow	CCs/MAs/Recall staff review patient lists generated from EHR and related reporting tools – for example, all patients with BP above target range. Patients not at goal are reviewed and contacted by CCs. CCs discuss goals, lifestyle changes, diet, and exercise with patient. CCs provide patient education and community resources as needed. Refer to Diabetes/Dietician educators. RN may initiate medication titration per protocol. Care Plan is developed in EHR. Reminders are made in EHR and sent to the Recall staff for review. Reminders are mailed when the patient is due for service or recheck.
Potential Enhancements	Working with EMR to develop patient registry for better BP management.