Pre-Visit Checklist: An Automated Tool to Improve Care Team Communication and Close Care Gaps

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Introduction

Pre-visit planning is a practice transformation strategy that can help to streamline administrative tasks and facilitate the closure gaps in care within the context of an office visit. It includes a variety of tasks that increase the efficiency of a care such as pre-visit labs, identifying gaps in care, preparing information for a visit, and huddling with a care team. Building on the template in the American Medical Association's STEPS Forward™ module [1] on pre-visit planning, we created a pre-visit checklist to help our residency teams plan for a visit by identifying gaps in care for preventive and chronic disease measures. With the help of our informatics team, we utilized analytics software to pre-populate the checklist with real-time information on gaps in care. We incorporated the checklist into the workflow for our teams, so that each patient has their checklist reviewed by clinical staff in advance of a visit and that teams utilize the checklist as the basis for a pre-visit huddle.

Background

Physicians at Sugar Creek (PSC) is the clinic for the Memorial Family Medicine Residency Program, a 14-14-14 unopposed, suburban program in Sugar Land, TX. The clinic is a Level 3 PCMH and part of Memorial Hermann Medical Group and the larger Memorial Hermann Health System, the largest not-for profit health system in Southeast Texas. Although most of our payer contracts are fee-for-service, we have a contract with a large Medicare Advantage plan and additional contracts with quality programs that incentive quality measures. At the time of this initiative, our clinic utilized GE Centricity as our electronic medical record (EMR). We had a 4 person in-house informatics team skilled in the use of *Tableau*, an analytics platform that serves as the basis of our quality reporting.

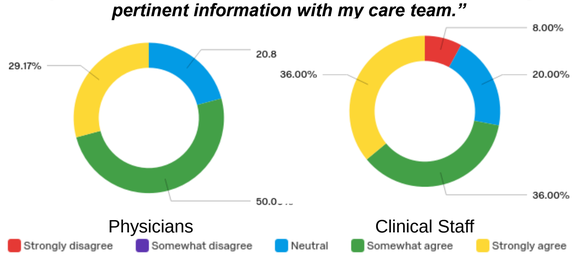
We introduced a care team huddle in each pod at the start of every clinic session in April 2015. To prepare for huddles, pod coordinators printed a chart summary that included medications, problems, allergies and basic demographics and reviewed charts ahead of time to identify services due. As each physician and clinical staff dyad huddled to review their schedule, the team reviewed services due and wrote notes in the margins. Clinical staff wrote vital signs and notes in any remaining free space as they roomed patients.

Huddles were reasonably successful, but our team coordinators were spending significant time manually reviewing charts in advance. The services identified were not standardized across pods, and accuracy was highly variable. The process was specific to each dyad, and covering clinical staff did not share the same practices, leading to confusion if a different team member roomed the patient. We identified an opportunity to improve satisfaction with huddles, decrease staff time on manual chart review, and close care gaps.

Methods

In May 2016, we assembled an interdisciplinary team that included members of our informatics team, our population health manager, our clinical nurse manager, medical director and residents to tackle pre-visit planning. Clinical staff and physicians were surveyed to determined satisfaction with current processes. Most notable was the difference in perception of the current process of huddles and information gathering between physicians and clinical staff (Figure 1).

Figure 1: "*Before the visit takes place, I am able to exchange pertinent information with my care team.*"



Clinical staff, coordinators and physicians were interviewed about how the current chart summary tool could be improved. We identified a variety of functions a potential tool needed to serve:

- Identify gaps in care for prevention and chronic disease care
- Point out opportunities for wellness visits
- Assist clinical staff with administrative tasks
- Anticipate potential roadblocks to an efficient clinic session
- Serve as notepad for dyadic huddle

Specific measures were identified by looking for overlaps between USPSTF guidelines[4], payer contracts, ACO incentives and quality measures currently tracked on our dashboards. We also prioritized the effectiveness and value of interventions.[5] We matched that with what was technically feasible. Four task categories were identified (Table 1).

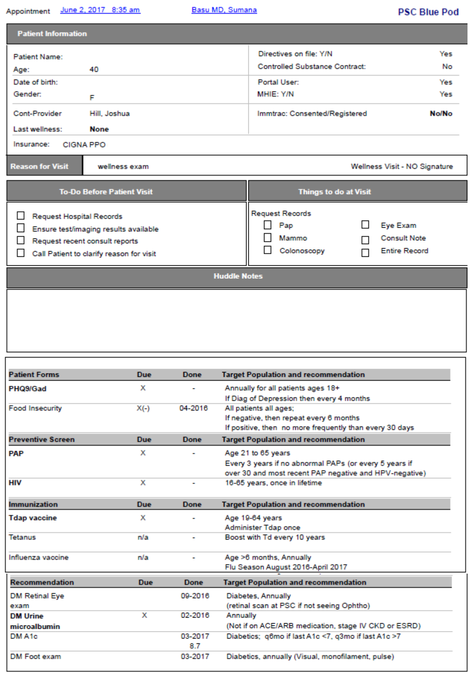
Table 1: Checklist Items identified.

Administrative Tasks	Immunizations	Preventive Care	Chronic Disease
• Food Insecurity Screen • Care plan review • Annual Wellness Visit	• Flu • Shingles • Pneumococcal • HPV • TdaP	• Depression • Breast Cancer • Colon Cancer • Cervical Cancer • Diabetes screen • HIV • Lipid • Hepatitis C • Bone Density • Chlamydia	**Asthma**: • Spirometry **Diabetes:** • Eye exam • Urine microalbumin • Foot exam • A1c q3-6m

Results

After testing and reviewing drafts with stakeholders, the pre-visit checklist was added to our huddles in August 2016 (Figure 2).

Figure 2*: Pre-Visit Checklist Example*



Appointment June 2, 2017 8:35 am — Basu MD, Sumana — PSC Blue Pod

Patient Information

Patient Name:		Directives on file: Y/N	Yes
Age:	40	Controlled Substance Contract:	No
Date of birth:		Portal User:	Yes
Gender:	F	MHIE: Y/N	Yes
Cont-Provider	Hill, Joshua	Immtrac: Consented/Registered	No/No
Last wellness:	None		
Insurance:	CIGNA PPO		

Reason for Visit: wellness exam — Wellness Visit - NO Signature

To-Do Before Patient Visit
- ☐ Request Hospital Records
- ☐ Ensure test/imaging results available
- ☐ Request recent consult reports
- ☐ Call Patient to clarify reason for visit

Things to do at Visit

Request Records
- ☐ Pap
- ☐ Mammo
- ☐ Colonoscopy
- ☐ Eye Exam
- ☐ Consult Note
- ☐ Entire Record

Huddle Notes

Patient Forms	Due	Done	Target Population and recommendation
PHQ9/Gad	X	-	Annually for all patients ages 18+ If Diag of Depression then every 4 months
Food Insecurity	X(-)	04-2016	All patients all ages; If negative, then repeat every 6 months If positive, then no more frequently than every 30 days
Preventive Screen	**Due**	**Done**	**Target Population and recommendation**
PAP	X	-	Age 21 to 65 years Every 3 years if no abnormal PAPs (or every 5 years if over 30 and most recent PAP negative and HPV-negative)
HIV	X	-	16-65 years, once in lifetime
Immunization	**Due**	**Done**	**Target Population and recommendation**
Tdap vaccine	X	-	Age 19-64 years Administer Tdap once
Tetanus	n/a	-	Boost with Td every 10 years
Influenza vaccine	n/a	-	Age >6 months, Annually Flu Season August 2016-April 2017
Recommendation	**Due**	**Done**	**Target Population and recommendation**
DM Retinal Eye exam		09-2016	Diabetes, Annually (retinal scan at PSC if not seeing Ophtho)
DM Urine microalbumin	X	02-2016	Annually (Not if on ACE/ARB medication, stage IV CKD or ESRD)
DM A1c		03-2017 8.7	Diabetics; q6mo if last A1c <7, q3mo if last A1c >7
DM Foot exam		03-2017	Diabetics, annually (Visual, monofilament, pulse)

The report was set to batch print based on appointments scheduled for a given day, which enabled the printing of an entire pods' schedule two days in advance. The printed checklist was then reviewed by pod coordinators to determine what needed to be done to prepare for the visit (obtain hospital records, etc). Add-on appointments could be printed individually, although the ability to pre-plan was more limited after a huddle occurred. A training document was created to explain how to use the tool for huddles. Significant time was spent fixing the code to ensure prompts were accurate over the first few weeks of implementation. Concerns over accuracy were by far the most common problem after rollout, although this improved as users became familiar with it. The design team reconvened informally after 3 months to review feedback. Among requests were to add measures, as well as requests to add medication list and problem list to the summary.

Discussion

Subjectively, we improved the quality of communication in our pre-visit huddles by creating a structured agenda for our dyads. We found that the explanations on the checklist served as an educational tool for clinical staff and residents alike. We found that clinical staff embraced the checklist well, with many wanting the ability to close gaps by ordering tests. Choosing measures that were actionable and accurate was key. The development of standing orders around tests on the checklist was a companion project, and would have better enabled our teams to work at the tops of their licenses. As users became more dependent on the checklist, we received more requests for new measures to be added. We did not take advantage of using the tool for pre-planning labs, although this would be a logical next step for the checklist in the future.

Conclusions

This project shows how the concept of a pre-visit checklist, enhanced by technology, can be individualized to capture practice needs and help achieve the quadruple aim. During the course of implementation of our checklist, we decreased the time clinical staff spent preparing for clinic sessions and physicians spent reviewing charts to identify care gaps. The checklist created a common language around pre-visit preparation expectations. Our initial plan was to re-survey participants at 6 months and 12 months to determine next steps, as well as roll-out additional pre-visit tools such as pre-planned labs. Due to a change in our EMR system, we were unable to continue use of the checklist in its current form. We are working to adopt a point-of-care tool in our new EMR that will show gaps in care and serve as a discussion point for our huddles.

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