

# Actionable Patient Safety Solutions™ (APSS™): Care Coordination

## How to use this guide

This APSS provides evidence-based resources and recommendations for care coordination for executives, leaders, clinicians, and performance improvement specialists. This document is intended to be used as a guide for healthcare organizations to examine their own workflows, identify practice gaps, and implement improvements. In it, you will find:

**Best Practice Summary:** A high level summary of evidence-based, clinical best practices. (page 2)

**Executive Summary:** Executives should understand the breadth of the problem and its clinical and financial implications. (page 2)

**Leadership Checklist:** This section is for senior leaders to understand common patient safety problems and their implications related to care coordination. Most preventable medical harm occurs due to system defects rather than individual mistakes. Leaders can use this checklist to assess whether best practices are being followed and whether action is needed in their organization around care coordination. (page 3)

**Clinical Workflow:** This section includes more specific information around care coordination across the continuum of care. Leaders should include the people doing the work in improving the work. This section outlines what should be happening on the frontline. Clinicians can use this section to inform leaders whether there are gaps and variations in current processes. This is presented as an infographic that can be used for display in a clinical area. (page 6)

**Education for Patients and Family Members:** This section outlines what frontline healthcare professionals should be teaching patients and family members about how lack of care coordination undermines the most robust clinician recommendations. Clinicians can inform leaders whether there are gaps and variations in current educational processes. (page 8)

**Performance Improvement Plan:** If it has been determined that there are gaps in current processes, this section can be used by organizational teams to guide them through an improvement project. (page 10)

**What We Know about Care Coordination:** If it has been determined that there are gaps in current processes, this section can be used by organizational teams to guide them through an improvement project. (page 17)

**Resources:** This section includes helpful links to free resources from other groups working to improve patient outcomes and safety. (page 17)

**Endnotes:** This section includes the conflict of interest statement, workgroup member list, and references. (page 18)

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# Best Practice Summary

## Establish effective care coordination processes.

- Standardize care coordination expectations and processes across the system.
- Build medical record systems to ensure that critical information is communicated and easily accessible by other providers and the patient.
- Provide tools for patients to engage in their care.

## Admission/entry

- Prepare patients for their visit ahead of time.
- Describe the role of all involved in their care.

## Routine care

- Update the plan of care with the patient.
- Ask for the patient's plan of care at each encounter.
- Use language that the patient can understand.

## Discharge

- Ensure patients are adequately prepared for the next steps in their care.
- Ask probing questions to assess for any barriers to actualizing next steps.
- Set realistic expectations for next steps and recovery.
- Ensure patients are physically and emotionally able to understand information provided about next steps in their care.

# Executive Summary

## The Problem

With at least 40 definitions of 'care coordination' the concept is complicated to integrate meaningfully within healthcare systems ([Friedman et al., 2016](#)). Our increasingly complex treatments and technologies require an even greater need for care coordination that is timely and effective to meet patient needs. Failure to effectively coordinate and communicate across the entire care continuum place patients at significant safety risks (medication errors, diagnostic delays, lack of appropriate follow up).

## The Cost

[Breckenridge et al.](#) found that patients supported by a care coordination program had a 19% lower probability of hospitalization compared with their counterparts, resulting in an estimated cost savings of nearly \$1500 per year per patient. Care coordination type interventions have been shown to increase patient empowerment and self-management of care ([Chen et al., 2016](#)) and tied to positive health outcomes (increased medication adherence) ([Nafradi et al., 2017](#)).

## The Solution

Better informed clinical decision making, empowering patients to become partners in their care, minimizing fragmentation through preventing information loss, and reducing the burden on the healthcare system.

This document provides a blueprint that outlines the actionable steps organizations should take to successfully improve care coordination and summarizes the available evidence-based practice protocols. This document is revised annually and is always available free of charge on our website.

## Leadership Checklist

### **Establish and communicate shared expectations for effective care coordination across the system by standardizing system-wide processes.**

- Appeal to all clinicians' goals of doing well for their patients in the initial implementation and describe how the initiative will improve the patient experience and ease of care. Making the care coordination process easy for everyone involved using a systems approach to minimize redundancies and areas of confusion. Instead, explain the 'forest through the trees'. In other words, reiterate how the systems approach will minimize redundancies and areas of confusion while ultimately making it easy for the workflows involved.
- Identify ways to make care coordination relevant to all by highlighting opportunities for care coordination in a variety of workflows. For example, a physical therapist (PT) involved in rehabilitation post-hip surgery may notice that patients struggle using their durable medical equipment (DME) post-surgery because they are dealing with the stressors from the procedure and re-learning how to operate, with the aid of DME. The PT may suggest that DME is coordinated with patients before the operation to allow the patients to get comfortable with the equipment. Mitigate shame patients may feel in asking for resources to be prepared by explaining that many other patients experience the same thing.
- Integrate multidisciplinary, multi-system professionals in education so they all have a shared understanding of what they can expect and what is expected of them.
- Prioritize the role of the primary care provider as the center point in patient care by setting up processes for all information and decisions to funnel back to the primary care provider.
- Establish a working relationship between all facilities within the healthcare system and those to whom care will be handed off to understand what is needed to improve the continuity of care. Work with representatives to define a high quality referral and share the final product across the system.
- Use simulation and role play informed by real observation to compare 1) what the sending clinician hears with 2) what the receiving clinician hears 3) what the patients and family members hear to understand areas of conflict and ambiguity. Use this information to understand the current state, identify gaps, and prioritize solutions.
- Agree on and standardize what 'high quality' care plan templates, referral processes, and [medication reconciliation processes](#) look like.
- Adopt an organizational [care plan structure](#) and [process for use](#). Expect that all frontline providers understand the importance of using the care plan (e.g., consider educating with case studies that show the impact of using the care plan for both the patient and the clinicians' day-to-day workflow).
- Establish a culture:

- Of peer accountability by establishing feedback systems focused on capturing gaps or ambiguous information and
- Where sending clinicians expect feedback from the receiving clinician about any gaps or ambiguous information in the patient report and that this feedback is viewed as collaborative rather than critical.
- Set a precedent for priority on care coordination by routinely reviewing and discussing specific data relevant for specific individuals. For example, get into the habit of huddling with workers on the frontline to review outcomes/progress of patients recently discharged from that unit or facility.
- Share the leadership progress with the care coordination initiative with those throughout the organization (e.g., visual boards, etc).
- Expect those on the frontline to [teach all patients how to access their data and information](#).

**Define the [set of clinicians, healthcare service organizations, community and social service organizations, and state and local public health agencies that are influential in the community environment](#) and make the purpose and capacity of each organization known to patients and the community.**

- Collectively agree on care coordination roles for each of those sectors (e.g., hospitals, rehabilitation clinics, pharmacies, community, and social service sectors, etc). Standardize sharing of information/data and roles for all.
- Ensure patients who are high-risk patients are aware of the resources available to them (See [Healthcare Literacy](#) APSS) and that all facilities are aware of the patient's care plan.
- Share information with patients about where to go for care suitable to their needs when they need that information. Oftentimes, emergency room waiting times are significant, and many patients may have conditions that are more appropriate for other care settings. St. Bernard's Hospital in Chicago, USA, displayed a [patient-facing informational presentation](#) in the emergency department waiting area outlining patient priority in emergency departments and other local resources for non-emergent care.
- Identify those who consistently assume accountability for care coordination within their role, understand what they do to coordinate care in their role, and use those individuals as examples of how all in the organization, not just care coordinators, can and should be involved in care coordination.
- Incentivize referrals to specialists who actively coordinate care.

**Set up systems so that all on the frontline know what to do when they identify specific needs of the patient.**

- Make it easy for those on the frontline to refer patients to resources when they are available. "Just one click" in the EHR adds up and can deter referral.
- Ensure those on the frontline know about the resources to which to refer patients to address their needs and preferences (e.g., nutrition programs).
- Listen to those on the frontline to understand where resources do not exist for patients to target partnerships for appropriate community resources. See [Social Determinants](#) APSS.
- Ensure the systems are updated, and the frontline is made aware of how new partnerships impact their workflow (e.g., "X" new partner provides \_\_\_\_\_, which can help patients with \_\_\_\_\_. To make a referral, follow these steps: \_\_\_\_\_").

- Listen to frontline clinicians' concerns about new processes and empathize with their already full workload by providing an easy feedback system once the initiative is implemented.
- Investigate the demand placed on healthcare workers that causes them to defer to others to coordinate care. Drill down into meaningful questions such as 'Think about something you do to coordinate care for the patient within your own workflow. Think about an example of when that intention was compromised. What was the reason? Interruption? Too much time spent on the task than originally planned? Etc.'

**Create efficient processes that prepare patients to be an informed decision maker, and minimize the perceptions of hierarchy between patients and the care team.**

- Set up systems so the patient is prepared, on the same level as the clinicians and care team, and can advocate for themselves in an informed way. In addition to considering concepts such as data sharing and resource availability in care coordination improvement, planning when these interventions occur from the perspective of the patient's timeline can be crucial. For example, providing patients with educational material before their appointments may be more effective for an equal discussion than only providing after the appointments.
- Support promotional/educational campaigns about what the patient can expect from their care team and what can be expected of the patient during their transitions of care. For example, share with patients that they should expect all providers to have their business cards available upon request or introduce themselves when they walk into a room.
- Design systems (electronic or written) that allow patients access to their care plan with the ability to update/make notes and encourage receiving providers to ask patients for the patient's care plan each time (e.g., provide patients access to their medical records).
- Implement warm-handoffs.
- Promote patient understanding of how to use their online portals to verify that providers are sharing information with one another that is timely and accurate.

**Commit to continuous improvement by listening to the needs and experiences of patients, family members, and those on the frontline.**

- Conduct an analysis (e.g., RCA, FMEA, etc) for gaps identified (e.g., missing/incomplete information that requires time spent trying to retrieve). Consider a [SWARMING](#) process to address process breakdowns quickly. Listen to both stories and data. Understand how the worker was not set up for success to begin with. It is important to acknowledge that this gap is not punitive but rather inform the sender of the missing/incomplete information. Make the individual clinician feel competent and empowered in their role toward the solution by listening to their suggestions and taking them as legitimate.
- Ensure organizational decision-making reflects the needs and abilities of the population (e.g., conduct a drug utilization review to ensure that the population's needs are met to the greatest extent possible, especially for vulnerable populations).
- Establish a patient reporting mechanism to understand their experience with receiving help during care coordination. Craft a balance between a quick screening to understand their experience after leaving the facility (e.g., check-ins via text) and a holistic deeper dive into their experience (e.g., [PFAC involvement](#)). Often, patients are forced to resort

to making a complaint to provide feedback at all. Using a complaint platform may deter patients from giving feedback and may contribute to a culture of defensiveness.

- Align hiring decisions based on desirable skillsets for care coordination, such as bilingual skills and [cultural competency](#). Effective care coordination requires buy in from patients. It has been suggested that patients are more likely to follow through and be actively involved in their care plan when they have a liaison within the healthcare system that they identify with ([Chuah et al., 2019](#)). Particularly for vulnerable populations, it is crucial to show that they belong to the system that is providing their care
- Listen to those involved in care coordination to understand their experiences. See Appendix A for a question guide.
- Empower all clinicians to own their workflow and watch for areas for improvement. Share when clinicians elevate areas for improvement in their own workflow for others.
- Consider the policy development process and how to implement meaningful policies based on feedback. Healthcare workers are often inundated with policies, procedures, protocols, pathways, order sets, “tip sheets”, etc. that are intended to guide practice. However, before the development of any policy, a thorough assessment of the existing policies is essential to make any new additions easy and clear for the end-user. See the “6Ps of Clinical Practice” in the “[Creating a Foundation for Safe and Reliable Care](#)” APSS.
- Adopt meaningful structural, process, efficiency, outcome, and patient experience and outcome [measures](#) (PREMs, PROMs).
- Caution justifications of even the smallest errors in care coordination (e.g., discharge lounge wait times when medications are needed). Instead of brushing it off as an instance narrowly avoided, investigate why that happened.

## Clinical Workflow

### 1. ALWAYS

#### Care Plan Creation and Patient Involvement

- Prepare patients to engage in their care early. See “[Education for Patients and Family Members](#)” section for Care Coordination information specifically and the [Person and Family Engagement](#) APSS for overarching strategies.
- Always use the standardized care plan.
- Use the ‘[teach-back](#)’ method when there are new concepts. See [Healthcare Literacy](#) APSS. Just because the patient can repeat back doesn’t necessarily mean they understand and can leverage the knowledge.
- Create and update the care plan with the patient at the optimal time for the patient and family members. Make sure patients and family members know where to find their care plan.
- Make sure patients and family members understand [their role in shared decision-making](#) and [care coordination](#).
- Set realistic expectations for patients about the facilities they will often encounter, the purpose, and what to be prepared within each.

- Have the patients and family members take ongoing notes and save them. Consider the patient's ability to take their own notes based on an assessment of their health literacy.
- Conduct [hand-offs with the involvement of the patient and family members](#).
- [Reduce the sense of isolated responsibility on family members](#).



## 2. ADMISSION/ENTRY

- Ask about the result of and instructions from the last healthcare visit/hospitalization. Include updates from all specialists, especially around medication changes.
- Describe the roles of all care team members.
- Provide business cards at each patient encounter.
- Follow [AHRO's IDEAL Discharge Planning](#) tool starting at admission.



## 3. ROUTINE CARE

- Walk with patients step by step through what they are expected to do as next steps once leaving the facility to identify barriers to the individual achieving their optimal outcome. Be aware of the [significant number of gaps in health equity that can compromise even the best clinical recommendations and care](#). See [Social Determinants](#) APSS. Plan ahead for discharge to ensure all relevant people are included, including family members.
- Revisit patient's goals of care and help set realistic expectations for recovery. Discuss length of recovery, anticipated schedule, possible pain, when to contact providers, etc.
- Plan ahead for care coordination needs during weekends, evenings, etc.



## 4. DISCHARGE/EXIT

- Help the patients understand any warning signs and exactly what to do to activate emergency response (e.g., phone numbers, when to call, etc).
- Determine follow up plan based on the patient's:

- o Severity (e.g., rigorous follow up needed post-stroke)
- o Circumstance (e.g., limited transportation capability may lend to remote visits), and
- o Needs (e.g., healthcare literacy needs).
- Document anything (e.g., tests) that is on hold for the receiving clinician.
- Arrange care with relevant outpatient clinicians. Relevant settings: home health services, skilled nursing facilities, long-term care facilities, rehab hospitals, etc. It is important to consider whether these facilities will have resources to treat the patient's specific condition and if the patient has financial resources to cover the costs.
- Review details of appointments that have been made with the patient and family members.
- Implement [Google question generating feature](#) or a written guide to identify the best questions patients can ask.
- Give patients 'homework' assignments to complete before their next visit so they are prepared. As always, ensure the assignment is feasible for that patient.
- Provide very clear written and verbal instructions to the patient and family members about next steps at the most optimal time possible and multiple times leading up to discharge. See "[Education for Patients and Family Members](#)" section and [Healthcare Literacy](#) APSS. Consider patient fatigue, medication interference, and other factors that may hinder their ability to process instructions.
- Help patients understand what is realistic and what is not.

## Education for Patients and Family Members

### How to Communicate

- Make the care coordination information shared with patients and family members relevant to the patient's personal circumstance.
- Share information in a way that they can understand and with as many elements as possible for their preferred method of communication (e.g., written materials, digital communication, etc).
- Develop strategies to help patients and family members manage the information being conveyed to them (e.g., written, digital, etc).
- Ensure they are aware that the purpose of care coordination is to connect them with resources across the continuum based on their needs. Therefore, it is important to explain what can be expected as next steps at each point in care and use probing questions to understand what needs the patient may have at each next step. See [Healthcare Literacy](#) APSS.
- Encourage patients and their representatives to [access their data and read their health record](#), either on paper or electronically.

# What to Communicate

## FRONTLINE CLINICIANS SHOULD ALWAYS EXPLAIN:

- What patients *should* expect of every care team member they interact with.
- How to update the care plan, how this care plan will be used, and where to access it.
- How to ask the best questions (e.g., using [Google question generating feature](#) or create a written guide).
- [How to access their data and information.](#)
- [How patients and family members can guide shared decision making conversations.](#)
- How to prepare for interaction with and prioritize their questions for their care team
- How to maintain an updated list of treatment, including all medications (including vitamins, etc), planned procedures, comments to follow up on etc. Example [here](#).
- Strategies to organize and maintain all of their information, questions, plans, etc
- The importance of asking for and keeping track of business cards of every healthcare professional they've interacted with.
- The importance of cross referencing copies of the care plan from the care team with their own notes.
- How to raise a concern if a discrepancy or problem is noticed.
- The importance of sharing abilities, priorities, goals, hopes, and fears for care.
- The importance of asking to be continuously updated on any changes to the care plan and the reasoning behind the changes.
- How to follow through with action items from each appointment. See [here](#) for an appointment follow through guide.
- How the caregiver role will change with changes in the patient's condition and the resources available to them.
- What an advance directive is and how to complete it.

Patients and family members need to feel and know they are equal with their care providers and that their care is centered around them, which requires more than words and educational pamphlets. It requires organizational culture change, cultural competence, and relationship building.



IN PREPARATION FOR VIRTUAL VISITS, EXPLAIN:	DURING TRANSITIONS TO ACUTE CARE, EXPLAIN:	DURING ACUTE CARE, EXPLAIN:	DURING TRANSITIONS FROM ACUTE CARE, EXPLAIN:
<ul style="list-style-type: none"> <li>• Any devices that may be needed.</li> <li>• The best setting for interaction (e.g., quiet place with adequate lighting).</li> <li>• How to download the teleconference software before the appointment and how to test it.</li> <li>• Where to go for help.</li> </ul>	<ul style="list-style-type: none"> <li>• How to request the involvement of a care coordinator and a team bedside huddle.</li> <li>• What to bring with them for personal preparation and to prepare for their involvement in their care.</li> </ul>	<ul style="list-style-type: none"> <li>• The roles of all care members.</li> <li>• How to be involved in all hand-offs, where possible.</li> <li>• How to request the involvement of a care coordinator and a team bedside huddle.</li> </ul>	<ul style="list-style-type: none"> <li>• How to prepare for discharge well in advance with the care team. See example <a href="#">here</a>.</li> <li>• How to review the discharge form and what they should be looking for in the discharge form.</li> <li>• How to identify any remaining questions, around illness, medications, treatments, lab tests/ results, etc.</li> <li>• What to do if condition(s) gets worse</li> <li>• Strategies to self-manage condition(s), change habits, and identify warning signs (e.g., signs of infection).</li> <li>• What resources in both the clinical and community settings will be available to them post-discharge to aid in their recovery and how to access these resources.</li> <li>• Any appointments that have already been scheduled and those that will need to be scheduled.</li> <li>• Important information for the receiving provider in the outpatient setting.</li> </ul>

			<ul style="list-style-type: none"> <li>• The process of how to access the patient's health record, both in paper form and electronically.</li> <li>• Directions for needed equipment according to affordability, accessibility, ability to use/store at home, etc.</li> <li>• How to modify the home environment to accommodate for the new diagnosis and equipment.</li> <li>• Special foods that may be needed and where to buy.</li> <li>• Permitted activities, such as bathing, climbing stairs, etc.</li> <li>• What <a href="#">care may be needed in the home</a>.</li> </ul>
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# Performance Improvement Plan

Follow this checklist if the leadership team has determined that a performance improvement project is necessary:

- Gather the right project team.** Be sure to involve the right people on the team. If possible, you'll want two teams: an oversight team that is broad in scope, has 10-15 members, and includes the executive sponsor to validate outcomes, remove barriers, and facilitate spread. The actual project team consists of 5-7 representatives who are most impacted by the process. In general, the key is having the right people on the team (people impacted by the process, executive sponsors, and subject matter experts), no matter the size of the organization. Whether a discipline should be on the advisory team or the project team depends upon the needs of the organization. Patients and family members need to be involved in all improvement projects, as there are many ways they can contribute to safer care. Define what constitutes a quorum, which team members are needed to make the quorum, and who can serve as alternatives.

**Complete this Lean Improvement Activity:** 

Conduct a [SIPOC](#) analysis to understand the current state and scope of the problem. A SIPOC is a lean improvement tool that helps leaders to carefully consider everyone who may be touched by a process, and therefore, should have input on future process design.

## RECOMMENDED CARE COORDINATION IMPROVEMENT TEAM

- Admitting and registration staff
- Quality and safety specialists
- Physicians
- Nurses
- Pharmacists
- Physical, occupational, and respiratory therapists
- Patients and family members
- Patient experience representatives or patient advocates
- Representatives from community partnerships (e.g., community and social service representatives, state and local public health representatives, etc)
- Radiologists and laboratory technicians
- Health information technologists, data analysts, and EHR specialists
- Scheduling personnel
- Care coordinators and social workers
- Those involved in purchasing decisions for the organization
- Those designing patient portals
- Organizational policy makers

Table 1: Understanding the necessary disciplines for a care coordination improvement team. It is important to ensure robust representation from all facilities within the system.

- Understand what is currently happening and why.** Reviewing objective data and trends is a good place to start to understand the current state, and teams should spend a good amount of time analyzing data (and validating the sources), but the most important action here is to go to the point of care and observe. Even if team members work in the area daily, examining existing processes from every angle is generally an eye-opening experience. The team should ask questions of the frontline during the observations that allow them to understand each step in the process and identify the people, supplies, or other resources needed to improve patient outcomes.

Create a [process map](#) once the workflows are well understood that illustrates each step and the best practice gaps the team has identified (IHI, 2015). Brainstorm with the advisory team to understand why the gaps exist, using whichever [root cause analysis tool](#) your organization is accustomed to (IHI, 2019). Review the map with the advisory team and invite the frontline to validate accuracy.



## CARE COORDINATION PROCESSES TO CONSIDER ASSESSING

- Creation of the care plan ([Example process map](#))
- Consideration of the patient's full circumstance in creating a care plan that works for them
- Updating the care plan
- Dialogue to explain how patients and family members can access the care plan, its purpose, and how it can/should be leveraged for safe care
- Initial patient-provider interaction
- How non-clinical staff members identify and elevate patient needs to clinical staff members who can then coordinate
- Clinical or community resources that are commonly used in referrals and if/how these resources are leveraged after referral
- Process to verify that the patient will receive appropriate care before sending the patient to a new facility
- Hand-off communication between clinicians
- Involvement of patients and family members in hand-offs
- Process to validate information and collect missing information from a patient's referral

- Process from identification of a patient need to referral for appropriate resources
- What those on the frontline do when they identify a problem in their workflow and how this problem is addressed
- Process for leadership to elevate a need for a new resources or a gap in care coordination from frontline reports
- Feedback mechanism for sending clinicians to understand the impact of their care throughout the subsequent patient journey
- Leadership acknowledgement of comments or concerns from patients and families and those on the frontline throughout the system
- [How units/facilities are held accountable](#)
- [How primary care facilities prepare to receive patients and prevent hospital readmissions](#)
- Collection and verification of patient information

Table 2: Consider assessing these processes to understand where the barriers contributing to gaps in care coordination may be in your organization. Consider using [Appendix A](#) for examples of specific questions to ask providers and patients within a current state assessment.

- **Prioritize the gaps to be addressed and develop an action plan.** Consider the cost effectiveness, time, potential outcomes, and realistic possibilities of each gap identified. Determine which are priorities of focus for the organization. Be sure that the advisory team supports moving forward with the project plan so they can continue to remove barriers. Design an experiment to be trialed in one small area for a short period of time and create an action plan for implementation.

**The action plan should include the following:**



- Assess the ability of the culture to change and adopt appropriate strategies
- Revise policies and procedures
- Redesign forms and electronic record pages
- Clarify patient and family education sources and content
- Create a plan for changing documentation forms and systems
- Develop the communication plan
- Design the education plan
- Clarify how and when people will be held accountable

### TYPICAL GAPS IDENTIFIED IN CARE COORDINATION

#### Creation of the Care Plan ([Example process map](#))

- **Gap:** Patients do not understand what information they should share upon initial diagnosis ([Example root cause analysis via Fishbone diagram](#))
- **Gap:** Patients are not aware of the various options available to them (e.g., choice of physicians versus nurse practitioners).
- **Gap:** Information from the medication reconciliation is not complete.
- **Gap:** The needs of the patient as a whole person are not considered.
- **Gap:** Patients are grouped together in a blanket care approach.
- **Gap:** The concept of shared decision making is applied in a variety of ways.
- **Gap:** Patients do not understand the concept of [shared decision making](#).
- **Gap:** Patients do not understand the treatment's purpose or they may understand enough to recite it back to the provider but do not know what it means for their holistic care and what it will entail.
- **Gap:** The patients' ability to actualize the clinical recommendations is not considered.
- **Gap:** The receiving facility's ability to handle the patient needs is not known before making the referral.
- **Gap:** Patients do not understand next steps in their care plan.
- **Gap:** There is no feedback loop upon transfer.

- **Gap:** The patients and family members don't understand how to access their care plan/portal and why its important.
- **Gap:** Education is not in the patient's preferred language.

### **Consideration of the patient's full circumstance in creating a care plan that works for them**

- **Gap:** The patient is not asked probing questions about how feasible the clinical decisions will be beyond that one point of care. For example, will the patient's insurance cover the medications you are prescribing sustainably? Will the patient be able to get to their rehabilitation appointment post-hospitalization? What other barriers is the patient facing in their life just to stay alive and where does continued medical care fall in their list of priorities?
- **Gap:** Providers don't understand the unspoken patient needs.
- **Gap:** [Social determinants that can compromise even the best clinical recommendations and care](#) are not considered or known. See [Social Determinants](#) APSS.

### **Updating the care plan**

- **Gap:** The care plan is not accessible to everyone across the system.
- **Gap:** Patients do not have the ability to update their care plan.
- **Gap:** Patient preferences, goals, and abilities are not considered in determining alternative options.
- **Gap:** Information falls through the cracks between deciding to change the care plan and subsequent appointment scheduling, informing the patient of next steps, etc.

### **Dialogue to explain how patients and family members can access the care plan its purpose, and how it can/should be leveraged for safe care**

- **Gap:** Dialogue takes up time in clinicians' schedules and other support staff members are not leveraged to help guide patients through these instructions.
- **Gap:** Patients do not know when, why, or how to access the care plan.
- **Gap:** Patients who do not have access to the Internet cannot access their electronic care plan.

### **Initial patient-provider interaction**

- **Gap:** The tone of the interaction is hierarchical, cold, and lacks shared understanding.
- **Gap:** Patients feel rushed.
- **Gap:** Patients feel disrespected and not heard.
- **Gap:** Patients do not have time to share their goals and priorities first.

### **Collection and verification of patient information**

- **Gap:** Data integrity from the care plan is poor throughout the system.
- **Gap:** Patients don't know what information is relevant to share, especially information about circumstances that are not strictly healthcare related (e.g., home life).
- **Gap:** Patients and family members are not prepared to leave a facility.
- **Gap:** Medication reconciliation processes are difficult, time consuming, and often not accurate or comprehensive. See [Medication Safety](#) APSS.

### **How non-clinical staff members identify and elevate patient needs to clinical staff members who can then coordinate**

- **Gap:** There is organization-wide way for non-clinical support staff to document or communicate patient needs in a reliable way. Things get lost in verbally 'running it up the chain'.

### **Clinical or community resources that are commonly used in referrals and if/how these resources are leveraged after referral**

- **Gap:** There are varying degrees of frontline clinician understanding of what resources are available in the community once a patient need is identified.
- **Gap:** It is not easy for frontline clinicians to make referrals to resources within their existing workflow.
- **Gap:** Referrals are made but there's little uptake of the resources/personnel to which the patient was referred.

### **Process to verify that the patient will receive appropriate care before sending the patient to a new facility**

- **Gap:** New facility does not have the ability to provide appropriate care for patients (e.g., cannot compound certain medications).

### **Hand-off communication between clinicians**

- **Gap:** There is no shared mental expectation for communication within the organization (e.g., SBAR, I-PASS, etc). See [Hand-Off Communication](#) APSS.
- **Gap:** There is no time for a thorough hand-off with teach back included.
- **Gap:** Clinicians do not ask clarifying questions during the hand-off.

### **Involvement of patients and family members in hand-offs**

- **Gap:** There is no expectation that patients and family members are involved in the hand-off.
- **Gap:** Patients and family members don't know that they should maintain notes during the hand-off.
- **Gap:** Patients and family members don't know how to prepare for the hand-off.
- **Gap:** Patients and family members don't want to seem ignorant for asking questions.

### **Process to validate information and collect missing information from a patient's referral**

- **Gap:** Patients or family members do not speak majority language
- **Gap:** Outpatient facilities are difficult to access after business hours.

### **Process from identification of a patient need to referral for appropriate resources**

- **Gap:** It takes a lot of time to effectively refer patients to appropriate resources.
- **Gap:** Frontline clinicians do not know what resources are available within the organization that would be suitable for the patient's need.
- **Gap:** Patients and the general public don't know where to go for help (e.g., emergency room over urgent care for sepsis suspicion)

### **What those on the frontline do when they identify a problem in their workflow and how this problem is addressed (e.g., whether addressed at that moment in time, elevated to leadership, not addressed, etc)**

- **Gap:** Frontline clinicians do not understand how their workflow integrates into the full continuum of care. For example, if those who are scheduling appointments for one facility do not understand how those appointments are then being conducted once the patient arrives, the scheduler may not know that when scheduling, they should alert the patient to bring specific items to improve the quality of the appointment.
- **Gap:** People assume that 'this is the best it will get' or 'this is how it has always been done'.
- **Gap:** It is difficult for those on the frontline to elevate gaps in coordination within their workflow.
- **Gap:** Frontline clinicians do not have faith that anything will be done even if they do elevate a gap.

### **Process for leadership to elevate a need for a new resources or a gap in care coordination from frontline reports**

- **Gap:** Data analysis and reporting trends is difficult.

### **Feedback mechanism for sending clinicians to understand the impact of their care throughout the subsequent patient journey**

- **Gap:** Clinicians don't understand the impact of their specific workflow.
- **Gap:** Clinicians are not recognized for being proactive.

### **Leadership acknowledgement of comments or concerns from patients and families and those on the frontline throughout the system**

- **Gap:** Timely feedback for behavior change is lacking.
- **Gap:** Patients and family members are not included in organizational improvement initiatives. See [Person and Family Engagement](#) APSS.

**General:**

- **Gap:** Primary care providers are left out of decision making when they are supposed to serve as the central point for all coordination.
- **Gap:** Data and patient information is not readily accessible when needed across the system.
- **Gap:** Misperceptions about information exchange based on HIPAA and other privacy laws.

*Table 3: By identifying the gaps in care coordination, organizations can tailor their project improvement efforts more effectively. The above are examples of gaps. This is not a comprehensive gap analysis and gaps will vary by organization, region, and time of analysis.*

- **Evaluate outcomes, celebrate wins, and adjust the plan when necessary.** Measure both process and outcome metrics. Outcome metrics include the rates outlined in the leadership checklist. Process metrics will depend upon the workflow you are trying to improve and are generally expressed in terms of compliance with workflow changes. Compare your outcomes against other related metrics your organization is tracking.

Routinely review all metrics and trends with both the advisory and project teams and discuss what is going well and what is not. Identify barriers to completion of action plans, and adjust the plan if necessary. Once you have the desired outcomes in the trial area, consider spreading to other areas ([IHI, 2006](#)).

It is important to be nimble and move quickly to keep team momentum going, and so that people can see the results of their labor. At the same time, don't move so quickly that you don't consider the larger, organizational ramifications of a change in your plan. Be sure to have a good understanding of the other, similar improvement projects that are taking place so that your efforts are not duplicated or inefficient.

[Read this paper](#) from the Institute for Healthcare Improvement to understand how small local steps



### CARE COORDINATION METRICS TO CONSIDER ASSESSING

**Process measures:**

- Percent of patients with care goals established at discharge
- Percent of patients with a functional status assessment at baseline, admission, discharge, and 30 days post discharge
- Percent of patients with at least one 30 day follow up visit by a provider involved in care received during the initial hospitalization
- Percent of patients with at least one visit by a primary care provider within 30 days of discharge
- Percent of discharged patients that received medication reconciliation at admission, transitions, and discharge
- For between-facilities transitions: Percent of receiving clinicians who obtained all the information listed in "discharge clarity" section above

- Average time spent per case on reconciling patient document from different sources, including sending information requests, filling information gaps and correcting information discrepancies
- ED admission rate: Percent of discharged patients with admissions to the ED within 30 days of discharge
- Mortality rate: Percent of discharged patients with all-cause mortality within 30 days of discharge

**Outcome measures:**

- Readmission rate: Percent of discharged patients with unplanned readmissions within 30 days of discharge
- Mortality rate (Exclude comfort care patients from population used to measure all cause mortality rate)
- Adverse drug event rate: percent of patients with a drug interaction complication within 30 days of discharge

**Patient reported measures:**

- Percent of patients who report satisfactory progress toward care goals established at discharge
- Percent of patients/surrogates who report a positive change in functional status
- Percent of patients who feel they were discharged on time
- Percent of patients who received a patient discharge form detailing illness, medications, treatments, lab tests/results, and outcomes
- Percent of patients who feel their preferences were taken into account in the care process
- Percent of patients who feel their self-management needs were met
- Percent of patients who feel knowledgeable about what to do if condition got worse
- Percent of patients who feel knowledgeable about managing their condition, changing health-related habits, and warning signs
- Percent of patients who feel they obtained all the information they wanted from clinicians
- Percent of patients who feel their clinicians had the appropriate information in taking care of them

**Teamwork assessments:**

- To what extent do you feel you work as a team when performing care coordination?
- To what extent do you feel confident in your role and responsibility for care coordination?
- Does the way your team deals with coordination failure, information discrepancy or disagreements seem constructive to you?
- How do you rate the adaptability of your team to patients' status change?
- How do you rate the ease of patient referral to another healthcare resource (other providers within the same facility, another healthcare facility, community health-related resources, socio-economical resources, educational resources, etc. )?
- How do you rate the ease to elevate an identified patient need to the leadership if additional support is needed?

**Other:**

- Whether the organization has a documentation system to store all the interpersonal interactions about care coordination through face-to-face conversations, telephone calls, letters, and emails
- Whether the patients have access to their patient portal that will allow them to view, download or transmit their health information to a third party
- Does each care level/unit have the ability to update the patient's medications electronically as new or more reliable information becomes available?

*Table 4: Consider evaluating related metrics to better understand care coordination presence and contributing factors to care coordination gaps. The above are only examples, to be prioritized after the organization-specific current state assessment.*

# What We Know About Care Coordination

In any situation, a person decides what to do based on an understanding of facts, issues, options for action, and consequences. In the context of healthcare, this understanding is encompassed by the term “health literacy”, and its huge importance is demonstrated by the fact that improving health literacy is one of the U.S. government’s Healthy People 2030’s Foundational Principles and Overarching Goals ([Healthy People 2030, 2021](#)). The scope and variation of the health literacy problem across the U.S. is revealed by findings that even in the best performing counties 15% to 27% of the population had limited health literacy, while in the lowest performing counties the number was 36% to 59% ([United Health Group, 2021](#)).

Inadequate health literacy is an issue plaguing communities on a global scale, and it is crucial that when aiming to improve a communities health literacy levels that it is done in a way that is specific towards the community in which it is being targeted. Health literacy and culture work synchronously such that communities and culture influence the ways in which health literacy is built and sustained ([World Health Organization, 2013](#)).

Personal health literacy affects a patient’s ability to navigate the healthcare system, locate providers and services, fill out complex medical forms, and engage in chronic disease management and self-care. Limited literacy results in higher than necessary morbidity and mortality, with research demonstrating links in a number of serious and costly areas including medication errors, delayed diagnosis, decreased use of preventative services, increased rates of hospitalization, poorer health status, and limited self-management skills. The CDC estimates that improving health literacy could prevent nearly 1 million hospital visits and save over \$25 billion yearly ([CDC, 2021](#)).

Efforts to increase health literacy are an organizational imperative. In addition to personal health literacy, the CDC stresses the importance of organizational health literacy, defined as “the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others” ([CDC, 2021](#)). The [Joint Commission](#) embeds the concept of health literacy into several of its requirements and initiatives, emphasizing that improving practitioner-patient communication must be a priority across the continuum of care, and even that improved communication must be promoted through policy changes.

## Resources

### Resources for Care Coordination Improvement:

- [Strategies for Successful Care Transitions](#)
- [AHRQ: Patient and Family Engagement in Primary Care](#)
- [Accountable Care Units: A disruptive Innovation in Acute Care Delivery](#)
- [Benefits of Implementing the Primary Care Patient Centered Medical Home](#)
- [Preparing Your Home For Recovery](#)
- [Iowa Statewide Care Coordination Strategy](#)
- [Care Management: Implications for Medical Practice, Health Policy, and Health Services Research](#)
- [Google question generating feature](#)



## Resources for General Improvement:

- [CMS: Person and Family Engagement Toolkit](#)
- [Nurse Bedside Shift Report: Implementation Handbook](#)
- [Rapid Improvement Guide to Red and Green Bed Days](#)
- [SAFER Patient Flow Bundle](#)
- [Guide to Reducing Long Hospital Stays](#)
- [NHS: Care Coordination](#)
- [NHS: Single Point of Access](#)

# Endnotes

## Conflicts of Interest Disclosure

The Patient Safety Movement Foundation partners with as many stakeholders as possible to focus on how to address patient safety challenges. The recommendations in the APSS are developed by workgroups that may include patient safety experts, healthcare technology professionals, hospital leaders, patient advocates, and medical technology industry volunteers. Workgroup members are required to disclose any potential conflicts of interest.

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## Appendix A: Current State Analysis Question Guide

If you are getting this information via survey, consider how this survey may merge with other data you wish to collect from patients or providers so not to send multiple surveys that could've been combined into one to make it very easy for the end user.

### Ask providers:

- What are the common gaps you see when you receive a new patient (e.g., inability to compound a drug at a certain facility despite patient arriving with that prescription)?
- How often do you feel as though you are unclear from a receiving perspective after a hand-off?
- How do you assess for clarity in the receiver when you are the sender in a hand-off?
- How often do patients express their needs that you are unable to address (e.g., "I don't have any food at home" or "I can't get to this location since it's so far away")? What are common needs that are difficult to address?
- What is the process like to actually make a referral to a community or external resource?
- How do you determine where to refer a patient (e.g., list of services in EHR, etc)?
- How do you both flag and refer a patient in the EHR? Are those two processes on the same page or close to one another?
- How do you hear about the patient's encounter (or lack thereof) with a resource or facility to which you referred them?
- How accessible was the patient's most updated care plan? How did you access it? What does the [care planning process look like within the interdisciplinary team](#)?
- How often do patients tell you about their expectations for care?
- How often do patients make notes on their care plan to share with you?
- What are areas in your own workflow that you've noticed can be improved with better systems for care coordination?
- Where/how do you provide feedback on the care plan template? How is your feedback acknowledged by leadership?

### Ask patients:

- How accessible was your updated care plan? How did you access it?
- How did you spend your time while waiting for care?
- When a resource was recommended to you in the community, how did you access it? What barriers did you face (e.g., did you have the contact information, did you have transportation to get there, etc.)?
- Is there a staff person or care coordinator that helped you facilitate your transitions during care?
- Did you have a written care plan?
- How often did providers ask for your care plan?
- Do you have time to ask the questions you would like to ask during clinical visits?
- Are you overwhelmed with information during clinical visits?
- What are your expectations for your care when you arrive at a new facility?
- If you have multiple portals with different provider organizations, are they integrated so that you and providers using one organization's portal can access your information on the portals of other organizations?