

The Skills of the Ambulatory Intensivist: A Review

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ABSTRACT

OBJECTIVES: We describe the skills of a physician who practices as an ambulatory intensivist caring for medically complex patients.

STUDY DESIGN: Provide a detailed referenced review of those skills.

METHODS: Succinct summary of the skills and guidance on how one acquires them.

RESULTS: Crucial elements in the ambulatory intensivist model include the ability to engage patients in order to promote meaningful improvements in health-related behaviors, provide effective leadership for an interdisciplinary team, and interact effectively with a select network of specialists. The ambulatory intensivist develops the ability to collaborate with insurers to mobilize needed social and clinical resources while using predictive modeling to assess concerns, yet still makes use of the more intuitive elements of clinical judgment to minimize clinical risk. Advanced clinical skills include in-center diuresis of patients with congestive heart failure, intensive home care that includes extended in-home nursing, and remote monitoring through telehealth devices on an as-needed basis.

CONCLUSIONS: Practices using this model demonstrated high patient satisfaction, reduced costs, and excellent scores on quality measures, thus achieving the Triple Aim. Physicians using this model also experienced satisfaction with their work, suggesting the possibility of achieving the Quadruple Aim, which includes improving the work life of healthcare providers in addition to the goals of the Triple Aim.

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Ambulatory intensivist care attends to the emerging needs of the medically complex patient who suffers from 5 or more serious chronic diseases that may result in hospitalization or death. Although some descriptions of caring for medically complex patients refer to advanced practice nurses as the principal caregivers,¹ this model focuses on physicians as the leader and principal provider of the ambulatory intensivist care team.² The ambulatory intensivist needs to provide specific medical care as well as coordinate specialty care. It differs from the current primary care practice in the United States, which includes healthy patients in addition to the seriously ill. It more closely relates to the Comprehensive Care Physician model described by Meltzer and Ruhnke,³ although the ambulatory physician and the hospitalist caring for the patient are one and the same in their model, whereas that is not the case in the model we describe. It also resembles the internist role in Canada, Australia, and New Zealand, wherein the internist is a specialist in serious illness who is consulted by general practitioners.⁴ Moreover, new skills are emerging in the 21st century that need to be implemented to provide fully effective care for these patients. The medical care of patients with multiple serious chronic conditions accounts for at least 75% of Medicare costs⁵ in the United States and similar costs in other developed countries. When this type of care is done well,

Table 1. Types of Clinical Approaches in Value-Based Care

Problem Type	Simple	Complicated	Complex
Prototype	Yes/no functionality	If/then algorithms	<ul style="list-style-type: none"> Leveraging relationships Variable correlations
Elements	Known	Knowable	Partly known, can change
Nonclinical examples	Following a recipe	Building a rocket	Raising a child
Clinical example	Strep pharyngitis	Surgery	<ul style="list-style-type: none"> Multiple complex conditions Frailty
Outcome	Predictable	Largely predictable	Inherently unpredictable on an individual basis; improved predictability at population level
Sample solution	Automating tasks, routinizing safety, checklist, monitoring	Care algorithms, standardized education and treatment	<ul style="list-style-type: none"> Building relationships, shared decision making N of 1 experiments and customization Interdisciplinary team management of multiple conditions
Provider autonomy	Low	Variable	High
Qualities needed to attain goal	Reliability	Reliability	<ul style="list-style-type: none"> Adaptability Resiliency
Integration	Parts and quantities clearly defined	Parts separated then coordinated	Parts cannot be separated from the whole

costs are reduced while clinical outcomes and the patient experience improve. The goals of the ambulatory intensivist include minimizing hospitalization and complications while maximizing longevity and enhancing patient well-being, thus achieving the objectives of the Triple Aim of Berwick et al.⁶

The financial viability for this role derives from health insurers' support for it because it lowers their costs through reductions in hospitalizations and unnecessary procedures along with a willingness to share the cost savings. The administration of this approach is typically through a Medicare Advantage plan or accountable care organization arrangements in the United States but would benefit other national healthcare systems as well. Development of the newer bundled reimbursement methodologies should support further development of this approach.

The ambulatory intensivist has a panel of 400 to 600 patients, depending on the patients' risk levels.⁷ This substantially lower patient panel size is crucial for the higher degree of provider-patient concordance during office visits and is fundamental to fulfilling the important tasks of this role as outlined below.

METHODS

Complex Patients Require Complex Skills

The multiple comorbidities of this population mean that taking excellent care of these patients is not simply following multiple algorithms, because there is no one algorithm that considers all of

the exigencies of multiple complex diseases. Rather, these patients create complex problems that the ambulatory intensivist and care team must solve on an individualized real-time basis (Table 1). This approach emphasizes the principles outlined regarding adaptive clinical microsystems as described by researchers at Dartmouth-Hitch Medical Center and elsewhere and includes fast feedback loops, active engagement of staff, coaching, and leadership development.⁸

Multiple changing variables for many conditions require that clinicians maintain a suitable degree of autonomy to integrate multiple risks and foresee complications before they occur. Although these skills may begin to develop during internal medicine residency training, it is necessary that the learning process continue while an attending physician in order to become a masterful clinician. There is simply too much involved in these skills to expect to acquire them completely during residency. These skills are a complex combination of interpersonal and analytic skills, application of advanced digital technology, and particular clinical skills and knowledge set. We highlight 7 skills required to solve the complex problems involved: creating a robust therapeutic relationship, activating patient behavior, working effectively in leading interdisciplinary teams, building collaborative and effective specialty relationships through multiple channels, developing a patient-centered approach to aligning goals and the care plan, predicting and managing clinical risk, and developing advanced clinical care skills (Table 2).

DISCUSSION

Creating a Robust Therapeutic Relationship

Although ambulatory intensivists specialize in taking care of patients who have multiple complex conditions, they must build on the foundational principles of excellent primary care. Creating a robust therapeutic relationship with patients requires excellent listening skills, an ability to get an accurate history, and, most importantly, perceiving the world through each patient's perspective. Empathic understanding of the patient's view is crucial but not always evident in clinical training, although it is receiving more attention in today's residency training programs, especially those with a primary care focus. Residency programs have begun to teach residents to care for the medically complex patient.⁹

Physicians spend a great deal of time in apprenticeship roles developing clinical skills, but most do not receive coaching as attendings in clinical practice. Professionals in other situations have found the benefit of getting high-level coaching on foundational skills once they are done training and practicing their profession. Examples outside of the medical clinical world vary, from professional sports to executive coaching for chief executive officers and other corporate officers. Health systems need to consider the operational and business logic around investing in ensuring that these skills are raised to a high level in the postresidency period of practice.

The medical literature points to the gap between best practice and actual practice. "My doctor doesn't listen to me" is a frequent complaint in patient satisfaction surveys. A study that measured physician-patient interactions found that physicians interrupted the patients after 18 seconds.¹⁰

We have observed that attending physicians benefit a great deal from regular feedback on listening skills and that even the best physicians can learn to make subtle improvements. Technological advances have dramatically lowered the cost of recording the encounter with the patient and having it available for professional feedback and coaching. Techniques, such as synthesizing a patient's history and reviewing it with them, have been advocated. Organizations, such as the American Academy on Communication in Healthcare, have developed programs for coaching clinicians toward superior communications skills.¹¹ Motivational interviewing skills are an important component of creating a robust therapeutic relationship wherein patient behavior can be modified effectively to improve health.¹² These skills are essential to being an effective clinician in improving the health of medically complex patients. Several members of the healthcare team can be involved in reshaping patient health behaviors.

Activating Patient Engagement

Care of the medically complex patient requires an engaged, activated patient in order to ensure appropriate adherence to a mutually agreed upon regimen of medication, diet, and activity. Patient

Table 2. Illustrative Clinical Skills of Ambulatory Intensivists

Domains	Skills
Patient relationships	<ul style="list-style-type: none"> • Synthesis and reflection • Motivational interviewing • Understanding patient preferences • Aligning care plans
Care team and network relationships	<ul style="list-style-type: none"> • Working with interdisciplinary teams • Selecting preferred specialists • Effective collaboration on plans
Assessing and mitigating risk	<ul style="list-style-type: none"> • Using quantitative predictive models in front-line decision making • Developing personal intuitive models: "the worry index" • Reviewing panel outcomes and cases • Understanding differential impact of interventions on patient risks
Complex condition care	<ul style="list-style-type: none"> • Ambulatory procedures • Remote monitoring • House calls • Hospital at home

education on self-care must be targeted to their levels of understanding and motivation. The activated patient is a full participant in their healthcare, including making meaningful lifestyle changes to improve their health. Patients with medical problems have often not been engaged in this manner, so the ambulatory intensivist team needs to provide an avenue for improved patient attitudes and behavior. Substantive evidence has demonstrated the value of motivational interviewing techniques to encourage effective behavioral change, especially when a patient is reluctant to make dietary and physical activity changes.¹² Professional or other social long-term support and follow-up appear to be important in reducing declines in adherence that typically occur 6 months into a behavioral change.¹³ Internet-based programs and e-counseling via mobile devices have demonstrated efficacy at enhancing adherence to improved behaviors.¹⁴

Demonstrated healthcare improvements include increased medical adherence and lowered diastolic blood pressure.¹⁵ Obstacles to patient activation include depression, cognitive impairment, distrust, other psychosocial disturbances, and health illiteracy. The skilled ambulatory intensivist team needs to be able to screen for and identify such obstacles and how to overcome them. Enhancing patient activation is essentially a team effort that includes nurses, social workers, care coordinators, or health educators as may be available on the healthcare team.

Working Effectively in Interdisciplinary Teams

Working with teams is a critical skill for the ambulatory intensivist. Team skills include listening and giving feedback, handling conflict, improving interpersonal relationships, running effective meetings, group processing abilities, self-management, negotiating,

and influencing others. Problem-solving skills include identifying improvement opportunities through root cause analysis, developing and selecting solutions, planning improvement, and ensuring ongoing quality. Many of these can be aligned with the quality-improvement methodology that the parent organization uses.

Nurses and nurse practitioners may play a crucial role as case managers and clinical providers. Nurses are more likely to follow protocols and guidelines than physicians, whereas physicians are more likely to develop management plans that can be individualized to a specific patient's needs. Nurses may be particularly adept at getting patients involved in self-care, which is crucial at improving clinical efficacy. Group learning sessions may add a social dimension to medical adherence that can also improve efficacy.¹⁵

Physicians caring for medically complex patients need to avoid serious drug–drug interactions. Interventions by a clinical pharmacist can be helpful in this regard. Pharmacists' use of a variety of computer programs to identify inappropriate medicines can help reduce and prevent drug-related readmissions.¹⁶

Other team members, including social workers, health educators, medical assistants, and office managers, are crucial in addressing the needs of medically complex patients. Meetings and huddles help teams coordinate their functions and develop a team identity. Activities that build and nourish a team culture are also important.

Building Collaborative and Effective Specialty Relationships

Because of the greater disease burden of medically complex patients, involvement of medical subspecialists at the practice site provides an important enhancement for ambulatory intensivist care. The ambulatory intensivist also needs to work effectively with specialists who are providing significant direct care for patients at a distance, including home health care providers, hospice, hospitalists, and physicians specializing in providing care in skilled nursing facilities, also known as “SNFists.”¹⁷ Direct experience with how particular specialists provide their specialty care can give the ambulatory intensivist additional perspective on how to work with them effectively.

Finally, ambulatory intensivists need to make decisions with their groups on the particular specialists with whom to work. Although some payers have run into market friction as they have narrowed their networks, most physician groups that are taking on risk for high-cost complex patients have effectively narrowed the specialist networks to whom they refer. There is a highly practical nature to it: With a few highly used specialists, the ambulatory intensivist has the opportunity to develop a closer, more seamless working relationship. The operational question is what criteria ambulatory intensivists should use to create their preferred referral relationships. Here are our perspectives on potential criteria:

Payer data. Depending on the relationships, some payers will share specialists' outcome data with referring physicians. There are 2 significant drivers of cost and utilization outcome data that are often not clearly revealed in these data: the underlying institution's facility costs and the average risk of the population. These drivers need to be taken into account when interpreting such data.

Specialist approach to care pathways. An open discussion should be had with the specialist or specialist group on their preferred approach to high-volume areas of care (eg, the decision-making criteria for subjecting a patient to cardiac catheterization or percutaneous coronary intervention). This discussion should focus on the clinical perspective rather than the financial one. Confirming the articulated approach through a chart review of patients who have recently gone through that pathway is important in the evaluation process.

Specialist approach to collaboration. The discussion around outcomes and care pathways has the potential to be contentious and create misunderstandings between the physician and the specialists. Ideally, the mindsets of the clinicians align (eg, a focus on improving patient outcomes as the primary goal, but with acknowledgement of each other's economic situation). The strength of the personal relationships has historically been a driver in creating the primary care–specialty relationship, but a new more objective basis is preferable. We believe that having an aligned mindset and shared approach to collaboration is critical in a value-based world.

Specialist approach to referral criteria. One of the areas in which physicians undergo a steep learning curve after residency is understanding which cases require referral. A more experienced physician becomes comfortable with referring less frequently over time due to their improved clinical acumen. There are many clinical situations where a simple discussion between the physician and the specialist suffices. If payment and logistical arrangements can be made (eg, teleconferencing paid by the hour), many patient referrals can be practically eliminated, with the patient–physician relationship improving as the patient experience becomes less fragmented and more coordinated.

Developing a Patient-Centered Approach to Aligning Goals and the Care Plan

There will often be a panoply of perspectives on the goals and objectives of a patient's care plan. These views come from the ambulatory intensivist, members of the interdisciplinary team, and specialists who may be part of the team. Of course, the patient's goals are important, too. Payers have also been looking to get their own perspectives in their mix; one health plan made patient-centered medical home incentives contingent on their nurse case managers creating a separate care plan.¹⁸

Interdisciplinary team meetings offer a practical forum in which to align these objectives. Ideally, the outcome of these initial and ongoing meetings is a care plan that is:

Aligned. Not only should different approaches among the care team members be worked out and aligned, it is also critical to incorporate the patient's preferences in setting priorities and treatment regimens and explicitly acknowledging when there is a mismatch between the patient's preferences versus the interdisciplinary team's beliefs.

Synthesized. Long, template-driven care plans can obscure, rather than enlighten. Thoughtful synthesis of the critical action steps will help ensure that the patient understands what is important.

Prioritized. Goals need to be realistic and sequenced appropriately. It is important to lead with the most vital goals.

Project-based. An important aspect will be to update the care plan and show appropriate progress or adjustment. Patients may become confused about the progress that they are making, but this can be overcome by showing them evidence of the progress in their outcomes measures.

Visually coded. Many patients respond well to visual codes. Use of red, yellow, and green for status updates can be a clear way to communicate with patients.

Transparent. Digital information technology makes it easier to communicate with all stakeholders on an ongoing basis. The care plan is updated and shared with all stakeholders, including the patient, thus increasing transparency.

Predicting and Managing Clinical Risk

Given the complex nature of care for this high-risk population, an effective overarching framework for guiding clinical care is essential to having a clear real-time understanding of the risks for imminent or future deterioration in the context of a patient's goals and then having a broad toolkit for reducing risk. Quantitative tools are useful but not sufficient. Many tools have been built from multiple sources, including claims, health risk assessments, and other survey-based instruments.¹⁹

None of the models have been proven superior when compared in blinded studies; their predictive value remains fairly low.²⁰ This is likely the result of having an incomplete and untimely data set or an incomplete model. Therefore, the clinician's intuition and personal algorithms around risk are also an important piece of the puzzle. Some physician groups, such as Iora Health, have committed to establishing a "Worry Index" where the clinician commits in writing to how concerned they are regarding each particular patient

after every visit.²¹ This allows the system to give physicians feedback on their predictive accuracy.

From a structural perspective, we believe that the combination of predictive analytics around risk combined with the physician's more intuitive judgment will create the most robust outcomes. This is a similar outcome to what has happened with computers versus chess players. The best "chess player" is actually a team of humans using computers who understand the strengths and limits of computer-generated algorithms and know how to improve upon the algorithm with human judgment.²²

Advanced Clinical Skills

The advanced clinical skills that the ambulatory intensivist utilizes will include in-center diuresis of patients with congestive heart failure,²³ parenteral rehydration, and ambulatory placement of peripherally inserted central catheter lines for parenteral medications, including antibiotics.

The ambulatory intensivist also needs skills for coordinating home-based services or directly providing them when necessary, as provision of intensive episodic home-based care has been shown to improve outcomes in and lower costs for complex patients.²⁴ These services include extended in-home intensive nursing, physician home visits, hospital-at-home programs, and targeted remote monitoring through telemedicine devices.²⁵ Issues of polypharmacy are addressed with the assistance of a clinical pharmacist who uses a specialized computer program to identify inappropriate medications so that patient complications and unnecessary admissions are avoided.²⁶ Prescriptive inertia may result in continuing medications whose risk-benefit balances are no longer favorable.

Improved Patient Experience, Quality Outcomes, and Cost

Physician practices that use the ambulatory intensivist model have shown significant improvements in outcomes. The ChenMed model in Florida published data showing 1058 hospital days per 1000 members per year in the Miami area compared with 1712 hospital days in the United States and even higher utilization for the Miami base rate.⁷ More recent data describing the Chicago-based Oak Street Health model show a net promoter score, which measures patients' recommendation on a scale of -100 to 100, of 91, demonstrating that patients enthusiastically embrace the model.²⁷ The practice also scored high on Healthcare Effectiveness Data and Information Set indicators while demonstrating a 42% reduction in hospitalizations of managed care patients from 364 to 210 admissions per 1000 beneficiaries per year.²⁷ This is good evidence that the Triple Aim is achievable with this model.

Physicians working in practices employing this model have expressed considerable satisfaction with their work experiences. Once ambulatory physicians become proficient at using this model

of care, they tend to appreciate having the renewed opportunity to demonstrate their mastery of complex clinical problems and provide those clinical benefits to their patients. We have often heard physicians express personal satisfaction at their renewed clinical mastery and a stronger sense of accomplishment.

CONCLUSIONS

The skills of the ambulatory hospitalist are a combination of interpersonal, team management, analytic and intuitive reasoning, and specific clinical skills. Further research on the application of this approach is needed to confirm its effectiveness and identify future best practices. The physician practicing this mode of caring for the medically complex patient strives to be a masterful clinician. Aspiring to and obtaining this level of practice can be a win for patients, clinicians, provider systems, and insurers alike, thereby achieving the Quadruple Aim.²⁸

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