

 **Innovation Profile:**

Point-of-Care Complexity Assessment Helps Primary Care Clinicians Identify Barriers to Improved Health and Craft Integrated Care Plans

 **Snapshot****Summary**

The Minnesota Complexity Assessment Method is used by clinicians to guide their assessment of potentially complex patients; to identify disease-related, social, and socioeconomic barriers to improved health; and to craft care plans—often involving an expanded health care team and community support services—to meet patient needs. Feasibility testing and anecdotal reports from both physicians and patients suggest that the approach is easy to use, promotes an enhanced understanding of the patient's situation, allows for more efficient/effective team conferences, improves the training experience of residents, and facilitates the development of customized care plans.

Developing Organizations

Department of Family Medicine and Community Health, University of Minnesota Medical School

Date First Implemented

2006

Patient Population

Patients whose care appears “stuck” or who might be labeled nonadherent; those with chronic illnesses, especially with multiple conditions (including medical, mental health, or chemical dependency conditions or persistent functional complaints), or those with significant psychosocial stressors that may decrease their participation in care.

Geographic Location > City; Vulnerable Populations > Impoverished; Medically uninsured; Medically or socially complex; Mentally ill; Non-English speaking/limited English proficiency

 **What They Did****Problem Addressed**

Certain patients present to primary care providers with multiple symptoms and nonmedical challenges to effective treatment, such as language barriers, unstable home situations, socioeconomic problems, or

involvement with multiple providers. Physicians often feel ill-equipped to handle such patients, leading to suboptimal care and outcomes.

- **Some primary care patients are costly and complex:** Patients with medical complexity (e.g., patients with more than one chronic disease or coexisting mental health conditions) and nonmedical complexity (e.g., language barriers, unstable home situations, socioeconomic problems, and/or involvement with multiple, poorly coordinated providers) account for a large percentage of medical resources. These complex patients are often overwhelmed by their illnesses, have a hard time explaining symptoms, and can be confused by their doctors' feedback and treatment.
- **Inability of current system to provide adequate treatment:** A physician often cannot single-handedly provide the range of services these complex patients require.¹ For example, one-half of patients with chronic health problems have psychosocial problems that typically require the care of a behavioral health professional on the team.¹ When symptoms persist, doctors often order more tests and/or send patients to other physicians in search of a diagnosis; in some cases, patients may shop for other doctors in search of a cure. The net result is that many persistent primary care users end up being "over-serviced but underserved," with underlying problems that have not been effectively identified and/or addressed by conventional medical approaches.²
- **Largely unrealized potential of more holistic approach:** When clinicians interview complex patients about their diseases or conditions (whether physical and mental health) plus their home environment, and other stressors in their lives in a reflective manner, they can often craft effective plans that help to reduce hospitalizations and medical costs (although the number of primary care visits may increase).³ Yet, few physicians use this type of an approach today.

Description of the Innovative Activity

The Minnesota Complexity Assessment Method helps providers quickly identify patient-specific, nonmedical factors that may interfere with successful care and decisionmaking for patients with health conditions. As medical, social, and socioeconomic issues are identified, providers develop integrated care plans tailored to the individual patient and enlist additional medical, mental health, and community support services as needed.

Highlights of the screening process follow:

- **Target population:** Patients who benefit from a structured complexity assessment include the frail elderly and those with multiple medical conditions, including psychiatric disorders and persistent functional complaints. Other candidates include patients who see a variety of specialists, take multiple prescription drugs, or have histories of difficult patient-clinician relationships. Patients who frequently visit their primary care provider or local emergency department, or who have had several unplanned visits to hospitals, may also benefit from the assessment.
- **Assessment process:** The assessment is not based on a fixed set of formal questions and does not produce a numerical score. Rather, clinicians are trained to take a holistic approach to understanding all aspects of a patient's health and life situation that may affect the course of treatment and use this information in developing a care plan. Once a physician or nurse is experienced in the method, it does not add greatly to the length of the primary care visit as much of the needed information can be easily elicited from the patient or is found in records. The approach can also be applied by medical staff during phone triage sessions. The assessment is documented on a worksheet to capture information on five dimensions or domains of a patient's medical, mental, social, and economic situation. Each domain has two questions that receive a grade ranging from 0 (indicating no complexity) to 3 (indicating high complexity and the need for intensive care planning). The domains and their associated rating scales are described below:

- **Illness Domain**

- **Current symptom severity or impairment:** Patients with no symptoms or mild symptoms that do not interfere with functioning receive a score of 0 or 1, indicating low complexity. Those with moderate to severe symptoms that interfere with daily functioning are deemed highly complex and hence given a score of 2 or 3.
- **Diagnostic uncertainty:** Patients with a clear diagnosis or a narrow range of potential diagnoses receive a score of 0 or 1, indicating low complexity. Patients with multiple possible diagnoses in which a clear diagnosis is expected receive a score of 2, whereas those with multiple diagnostic possibilities but no expectation of a clear diagnosis receive a score of 3.

- **Readiness Domain**

- **Level of distress and distraction:** Providers assess a patient's level of distress and distraction and preoccupation with symptoms. Those with no or mild distress earn a low score (0 or 1); those with anxiety, confusion, and mood changes due to distress receive a moderate score (2); and those with severe distress with behavioral disturbances receive a high score (3).
- **Readiness for treatment and change:** A patient who is ready and willing to cooperate with treatment is deemed to have low complexity and receives a score of 0. Those who are unsure or ambivalent but willing to cooperate receive a 1; those who are passive and have a major disconnect with the proposed treatment receive a 2; and those with a major disconnect with the proposed treatment, or who are defiant, and/or who will not negotiate receive a 3.

- **Social Domain**

- **Level of home safety and stability:** Patients in a safe and stable home with some dysfunction are considered to be low complexity and thus receive a score of 0 or 1. Those with a questionable home environment that needs to be further evaluated receive a moderate score (2). Those with an unsafe, unstable home environment in need of immediate change are classified as complex, receiving a score of 3.
- **Participation in a social network:** A patient with the support of family, coworkers, and friends receives a score of 0, indicating no complexity. Those missing one of these sources of support receive a 1, those missing two sources of support receive a 2, and those with no support are deemed highly complex and given a 3.

- **Health System Domain**

- **Organization of medical care:** A patient with one medical or mental health provider is deemed low complexity, whereas those who require services from multiple primary care, specialist, and mental health providers, and/or who are involved with social service systems, receive higher scores, indicating greater levels of complexity. Those with no consistent providers also score higher.
- **Patient-clinician relationships:** Patients who have trusting, cooperative relationships with providers are rated low complexity in this area. Those with one or more distrustful or remote relationships are deemed to be moderately complex, while those who distrust all of their providers are considered highly complex in this area.

- **Care Resources Domain**

- **Shared language/culture with provider:** Complexity increases when the patient and provider do not

share the same language (even when a professional translator is available). Patients who do not share a language with a clinician and who lack access to a family member or professional translator during appointments are deemed to be highly complex in this area.

- **Adequacy of health insurance:** Patients with health insurance who can afford their drugs and copayments are considered to be low complexity on this dimension. Those who are uninsured or underinsured, or who otherwise lack resources to pay for drugs and other needed services, are classified as complex in this respect.
- **Care plan development:** Based on the complexity assessment, the primary care provider, or a team of clinicians who were present for the screening or who have reviewed the assessment's results, craft a plan of action that goes beyond the traditional "disease-oriented" approach by addressing each of the various factors affecting the patient's health and well-being. The plan, which includes goals for each dimension, assigns specific roles and responsibilities to the patient and care team members.
- **Assessments enhance care plan conferences:** When a medical team is involved in the assessment in a clinic setting, or when a resident and supervisor review a care plan for a patient in a hospital setting, the assessment provides structure to the conference and leads more quickly from describing the patient to consensus action on a care plan.

References/Related Articles

Peek C, Baird M. Assessing patient complexity: a person-centered approach to care management. 10th Meeting of the Collaborative Family Healthcare Association. Nov. 7, 2008. Denver. Available at: <http://www.cfhcc.org/pages/docs/B01-Assessing-Patient-Complexity.pdf>

Stiefel F, Huysse F, Wollner W, et al. Operationalizing integrated care on a clinical level: the INTERMED Project. Integrated Care for the Complex Medically III. Med Clin North Am. 2006;90(4):713-58. [[PubMed](#)]

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Did It Work?

Results

Feasibility testing and anecdotal reports from both physicians and patients suggest that the assessment method is easy to use, promotes an enhanced understanding of the patient, allows for more efficient/effective team conferences, improves the training experience of residents, and facilitates the development of customized care plans.

- **Positive feedback from physicians:** Doctors reported several positive features to the assessment method, including the following:
 - **Easy to use:** Clinicians found the approach very easy and efficient to use, especially with patients they already knew.
 - **Promotes enhanced understanding of patient:** Providers reported the screening gave them a better understanding of the patient's current care structure (primary care, specialists, mental health, or social service providers), relationships with providers, symptom severity, diagnostic challenges, readiness for treatment and change, and openness to receiving additional support services.
 - **Allows for more efficient and effective team conferences:** When the entire team participated in screening, providers found that care conferences tended to be shorter and more informative, with fewer disagreements.
 - **Better training:** The screening helped residents learn to interview patients and to reflect on complexity factors more systematically than before; it also enriched discussions between residents and supervising staff and helped faculty become more effective in their teaching.
 - **Better care plans and referrals:** According to anecdotal reports, the assessments yielded better care plans and more appropriate referrals to mental health services and community support services. Use of the assessment tool helped the leaders of physician practices to realize the need for increased investment in care coordination services and to establish relationships with mental health and support services in their communities.
- **Positive feedback from patients:** Informal feedback from patients suggest that the dialogue generated by this approach strengthened their beliefs that providers fully understood their health situation, including the severity of their symptoms and the emotional, occupational, social, and economic stresses they face.

Evidence Rating (*What is this?*)

Suggestive: The evidence consists of feasibility testing of the assessment tool by residents and faculty at the University of Minnesota family medicine clinics, and several other practices convened by the Institute for Clinical Systems Improvement in Minnesota, along with anecdotal reports from patients and providers. More systematic investigation is under way.

How They Did It

Context of the Innovation

In addition to providing care to patients and training residents and medical students, the Department of Family Practice and Community Health at the University of Minnesota in Minneapolis emphasizes improving delivery of patient-centered care through better integration of behavioral and medical care. The work on assessing patient complexity is built on previous work on how to better integrate mental health services into primary care and into the education of residents. It also builds on concepts and assessment practices for the inpatient setting developed in the Netherlands. The innovators wanted to expand these efforts to create better diagnostic and care planning tools for complex or “difficult” patients.

Planning and Development Process

Key elements in the planning and development process included the following:

- **Adapting Dutch concepts and screening model:** University of Minnesota faculty worked with the Frits Huysse (INTERMED Foundation) based at the University Medical Center in Groningen in The Netherlands to adapt portions of its multidimensional rating scale that uses a biopsychosocial approach to assess and plan treatment for inpatients. The InterMed model identifies the biological, psychological, social, and health care systems needs of a patient and also assesses a patient’s history, current status, and prognosis to develop a care plan.
- **Customizing for use in primary care:** Researchers developed an early prototype assessment approach that could be used effectively in fast-paced, U.S. primary care settings.
- **Clinician training:** The innovators conducted training sessions for residents and senior staff at the medical school and for family practitioners in outpatient settings. The method has been presented at many professional conferences (with feedback incorporated), including the Mayo Clinic, Collaborative Family Healthcare Association, Institute for Clinical Systems Improvement, Society for Teachers of Family Medicine, Society for Descriptive Psychology, University of Edinburgh, and the MaineHealth Learning Community.
- **Testing and refinement:** The draft method was initially tested by faculty and family medicine residents at the University of Minnesota. The approach continues to be refined in collaboration with Minnesota and other practices that have showed interest in participating in testing.

Resources Used and Skills Needed

- **Staffing:** In feasibility tests, the screening has been conducted by clinic physicians, nurses, integrated behavioral health clinicians, care managers, and medical residents. It has been used in outpatient clinics, phone triage, and hospital rounding. This testing has indicated that the method is feasible for use by a wide range of clinicians.
- **Costs:** Implementation and operating costs are minimal. In its current form, the assessment takes between 1 and 2 minutes and thus can easily be integrated into a patient examination. Some upfront training is required before implementation.

Funding Sources

University of Minnesota Medical School

The Department of Family Medicine and Community Health at the University of Minnesota Medical School provided funding for

development of the assessment tool. The Institute for Clinical Systems Improvement provided time, effort, and encouragement.

Tools and Other Resources

The developer will make the assessment documentation worksheet available on request.

INTERMED Foundation, located in The Netherlands, facilitates integrated patient-oriented health care for complex patients through an action-oriented, decision-support tool for clinicians that stimulates interdisciplinary communication. The tool is available at <http://www.intermedfoundation.org>.

Adoption Considerations

Getting Started with This Innovation

- **Provide upfront training:** Nurses, physicians, behavioral health clinicians, and others who routinely evaluate patients should be trained on use of the fundamental concepts of patient complexity across conditions and the associated rating scale used to identify complex patients.
- **Establish criteria for screening:** Establish which patients would benefit from the assessment, and routinely use the screening approach for all patients who meet that criteria. This work is still under way and probably depends on the particular needs of the clinic trying this method.
- **Identify potential partners and community resources:** Identify and establish relationships with community and family resources, along with other potential team members such as mental health providers and specialists who may be needed to support complex patients. Find ways to collaborate on the assessment of complex patients who are likely to exceed the ability of any one clinician to manage alone.

Sustaining This Innovation

Establish referral process and strengthen care coordination services: Create a system that identifies which patients—based on the assessment tool rating—should be referred to outside services or specialists. Whenever possible, create a care coordination service that helps complex patients manage their care.

Additional Considerations and Lessons

Use of the assessment method may demonstrate the limits of disease-oriented practice and hence may identify a need to redesign or expand services to include care management, more collaboration with other caregivers and specialists, and better linkages to social and community resources.

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¹ Baird M. Making the case for holistic mental health primary care. Scottish Development Center for Mental Health presentation. Sept. 26, 2008. Dundee, Scotland. Available at: file:///C:/Documents%20and%20Settings/Owner/Local%20Settings/Temporary%20Internet%20Files/Content.IE5/1PML3OEU/Mac%2520Baird%2520Integrating%2520MH%2520and%2520PC%2520Scotland%25209-26-08%2520Lecture%5B1%5D.ppt#289,6,Current Referral System Is Inadequate in U.S.

² Naessens J, Baird M, Van Houten H, et al. Predicting persistently high primary care use. Ann Fam Med. 2005;3:324-30. Available at: <http://www.annfammed.org/cgi/content/abstract/3/4/324>

³ Rasmussen N, Furst J, Swenson-Dravis D, et al. Innovative reflecting interview: effect on high-utilizing patients with medically unexplained symptoms. Dis Manag. 2006 Dec;9(6):349-59. [\[PubMed\]](#)

Innovation Profile Classification

Patient Population: Geographic Location > City; Vulnerable Populations > Impoverished; Medically uninsured; Medically or socially complex; Mentally ill; Non-English speaking/limited English proficiency

Stage of Care: Primary care

Setting of Care: Ambulatory Setting > Hospital outpatient facility, Physician office (individual); Physician office (group practice)

Patient Care Process: Preventive Care Processes > Screening; Active Care Processes: Diagnosis and Treatment > Assessment; Primary care; Patient-Focused Processes/Psychosocial Care > Provider-patient communication; Population Health Processes > Improving access to care

IOM Domains of Quality: Effectiveness; Equity; Patient-centeredness

Organizational Processes: Cultural competence; Process improvement; Training, knowledge management

Developer: Department of Family Medicine and Community Health, University of Minnesota Medical School

Funder: University of Minnesota Medical School



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