CMSA’s Integrated Case Management
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CMSA’s Integrated Case Management
A Manual for Case Managers by Case Managers

Kathleen Fraser, MSN, MHA, RN-BC, CCM, CRRN
Rebecca Perez, BSN, RN, CCM
Corine Latour, PhD, RN

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“In a gentle way you can shake the world.”
—Mahatma Gandhi
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Case managers, in concert with other health care professionals, have difficulty meeting individual and family health care needs due to the propensity for managing chronic behavioral health conditions in isolation from a patient’s chronic medical condition. This silo case management process followed the medical model of treating a patient’s disease, rather than treating an individual holistically with all components of his or her disease and health taken under consideration. Case managers embrace the population health model, and the opportunity to meet the triple aim—improving the patient experience of care (including quality and satisfaction); improving the health of populations; and reducing the per capita cost of health care.

The Case Management Society of America (CMSA) has long been an advocate for an integrated approach to patient and client case management services because it provides the best outcomes for patients, clients, soldiers, and veterans. However, the infrastructure and tools are not readily available to case managers to provide comprehensive case management services.

The initial *Integrated Case Management (ICM) Manual* addressed this need from a global and interprofessional perspective. Case managers will find in the new ICM manual a focused guide, written specifically by and for case managers on how to assess an individual, and together create a case management plan, designed with the individual’s goals at the center of the plan. The steps for the identified interventions and the necessary evaluation of long- and short-term goals are clearly defined in the new manual. The case manager has the opportunity to review the ICM tool and selected case studies that map the patient/client–centered plan of care for the achievement of both short- and long-term goals.

The CMSA Standards of Practice (SOP) incorporate the patient advocate role as fundamental to all other standards. ICM is the method that embraces the value of patient advocacy and allows the patient to determine his or her goals and the actions necessary to achieve these goals. The case manager is the trusted partner in assisting with plan and goal development and with the process of evaluating and adjusting the plan to achieve a value-based outcome.
The case manager using the ICM model has the ability to assess a patient’s or client’s historical and current socioeconomic risks in conjunction with the medical, cognitive, and behavioral risks. This comprehensive model addresses unresolved past issues and problems with a patient’s and client’s current challenges. The ICM approach also seeks to mitigate risk and prevent future setbacks or catastrophic events.

It is my great honor to present this new ICM manual written by my CMSA case manager colleagues for all case managers across the care continuum.

Mary McLaughlin Davis, DNP, MSN, ACNS-BC, NEA-BC, CCM
2016–2018 CMSA National President
Little Rock, Arkansas
It is my honor, as CMSA’s executive director, to introduce *CMSA’s Integrated Case Management* written by case managers for case managers. It is intended to bring to case managers a relevant textbook to enable the care transition processes of integration, which are safe and well-coordinated. The format is more conducive to individualization per organization, making the process not only attainable but easily and readily usable, irrespective of the setting or genre. This reference manual for nurses and other health professionals presents a CMSA-tested approach toward systematically integrating physical and mental health case management principles and assessment tools. The health care field has undergone major changes and health care workers must know how to integrate those new regulations, describe alternative payment options, and implement requirements for greater patient and family assessment, care planning, and care coordination into their practice.

Through collaboration, we can reduce duplications in health care, avoid gaps, and reduce health care costs—this is the essence of case management. It involves continual communication with patients, their caregivers, and the various professionals and services with which they come into contact. Fundamental to the collaboration is the presence of the case manager, taking the responsibility for overseeing and coordinating that care and helping patients and caregivers to navigate the system. This navigational role is important, because most individuals selected for case management need services or input from one or more providers. The cumulative impact of multiple strategies (rather than single interventions) is more likely to be successful in improving patient experiences and case management outcomes; therefore, it should be one of the key tools that is part of a wider strategy for integrated care.

*CMSA’s Integrated Case Management* delves into the role of the case manager and unpacks how case managers assess and treat complex patients. These are patients who may be challenged with medical and behavioral conditions, poor access to care services, as well as chronic illnesses and disabilities, and require multidisciplinary care to regain health and function. With a wealth of information on regulatory
requirements, new models of care, integration of services, digital and telemedicine, and new performance measures that are clearly defined for nurses in nursing terminology, chapters outline the steps needed to begin, implement, and use the interventions of the integrated case management approach. As a coauthor of the manual, I was thrilled that we were able to align all content with the newly revised 2017 Model Care Act, the CMSA Standards of Practice 2016 as well as the CMSA Core Curriculum for Case Management, Third Edition. By integrating the concepts and proven practice foundations of case management, your patients can truly benefit by utilizing the integration of behavioral health and physical health, using treatment guidelines and risk stratification methods created by case managers for you, the case manager!

Kathleen Fraser
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Mary McLaughlin Davis, DNP, MSN, ACNS-BC, NEA-BC, CCM  
*CMSA National President 2016–2018*  
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CMSA’s Integrated Case Management
Mechanics of Integrated Case Management, Health Complexity, and Integration Between Behavioral Health and Physical Health

Rebecca Perez
Kathleen Fraser

The white man talks about the mind and body and spirit as if they are separate. For us they are one. Our whole life is spiritual, from the time we get up until we go to bed.

—Yakima healer

OBJECTIVES

- Definition of health complexity
- Literature support
- Identification of medically complex populations
- Definition of the ICM process
- Qualifications and training
- Clinical versus nonclinical roles
- Issues and requirements of mental health parity and its impact on case management
Working with complex patients may be one of the greatest challenges case managers face. Complex patients require multidimensional assistance in order to reduce complexity. The historical biomedical approach is ineffective in helping complex patients regain stability; the focus has been on diseases and conditions. The integrated case management model teaches us to focus on the person challenged with medical, behavioral, and social issues to systematically help an individual regain health and function.

Health complexity is a multifaceted description of the challenges an individual may experience and there may be multiple interpretations or definitions accepted by those in health care. Health complexity may include the presence of both medical and behavioral conditions, multiple chronic illnesses, the presence of social concerns, poor access to needed care and services, impairments or disabilities, and financial concerns. Health complexity is often measured by the severity of an illness or level of care acuity. All components of complexity contribute to and impact the measurement of risk an individual may experience. For example, an individual with hypertension would not be considered “complex,” but if that same individual has early dementia and forgets to take the prescribed medication, risk is present; or if the individual cannot afford the out-of-pocket expense related to the prescribed medication, adherence to treatment is threatened and therefore risk is present.

Primary care physicians (PCPs) care for individuals with multiple medical conditions and likely spend the majority of their practice hours with these patients. As mentioned, there may be many interpretations of complexity but researchers from Colorado categorized complexity in their article “Primary Care Physician Insights Into a Typology of the Complex Patient in Primary Care” into four categories (Loeb, Binswanger, Candrian, & Bayliss, 2015):

- **Medical complexity**
  - Includes discordant conditions, chronic pain, medication intolerance, unexplained symptoms, and cognitive issues

- **Socioeconomic factors**
  - Unaffordability of medications, family stressors, and low levels of health literacy

- **Mental illness**
  - Depression that results in poor medication adherence, addiction, and anxiety
Behaviors and traits

- Demanding, argumentative, and anxiousness

The research conducted by the authors was important to better understand how PCPs conceptualize complexity to improve patient care. One-on-one interviews were conducted with internal medicine physicians who discussed patients they identified as complex. It is important to note that the physicians interviewed differentiated complex patients from “difficult” patients. Difficult patients are those who have challenging personalities but are not necessarily medically complex. Some of the physicians shared specific challenges related to working with the complex patient. Mental illness was identified as a barrier to treating medical illness; for example, depression specifically was identified as a condition that does not always respond to treatment. The experience of hopelessness that may be experienced with depression affects treatment adherence. Homelessness presents challenges because the physician is unable to locate and follow the patient’s progress. Another challenge mentioned was abuse and the patient’s choice not to leave the abusive environment.

Patients with a higher level of complexity obviously require more intensive support and resources. The primary author of this research hopes to better define medical complexity so that patients are identified earlier so that more intensive interventions can be implemented. This research defined complexity based on interviews with physicians caring for patients with multiple medical, mental, and social conditions. Perhaps complexity cannot be easily defined, or does not quite follow a set of guidelines. Perhaps complexity may be defined as any situation that does not fit a particular set of guidelines or algorithm.

The Case Management Society of America’s (CMSA) Integrated Case Management Program has and continues to focus on the following categories and their interaction:

1. Physical health (biological)
2. Behavioral health (psychological)
3. Social
4. Health system

While similar to the research included here, the CMSA categories are based more on the case manager’s world view: the patient’s challenges and opportunities and how best to assist the patient.
Individuals with complex medical conditions are typically a small percentage of a population but are responsible for using the majority of health care resources. Case management is a strategy implemented to improve access to care and quality of life while reducing the use of health care resources. An estimated 5% of the population uses 50% of health care resources (Goodell, Bodenheimer, & Berry-Miller, 2009). Individuals with five or more chronic conditions spend five times more for health care than those with no chronic conditions (Figure 2.1; Goodell et al., 2009).

How are patients identified for case management? Identifying and stratifying patients most likely to benefit from care management intervention is our target. Case management is a relatively intensive and costly service. Offering case management to patients who are not expected to be high utilizers of hospital, specialty, and emergency department (ED) care would not reduce costs. Similarly, case management for patients too sick to benefit is ineffective.

The health care reform policies implemented in recent years focused on efforts to improve quality and efficiency within health care systems. However, we see significant variation in quality across conditions and settings. To truly improve quality and efficiency, those at the highest risk for poor quality outcomes and significant costs require a special

**FIGURE 2.1 Average per capita spending by number of chronic conditions.**

<table>
<thead>
<tr>
<th>No. of Chronic Conditions</th>
<th>Average Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>$994</td>
</tr>
<tr>
<td>1</td>
<td>$2,753</td>
</tr>
<tr>
<td>2</td>
<td>$5,062</td>
</tr>
<tr>
<td>3</td>
<td>$7,381</td>
</tr>
<tr>
<td>4</td>
<td>$10,081</td>
</tr>
<tr>
<td>5+</td>
<td>$16,819</td>
</tr>
</tbody>
</table>

*Source: From Goodell et al. (2009).*
focus. CMSA’s Integrated Case Management approach can be that specific focus.

The 5% of the population mentioned earlier are those with comorbid medical and behavioral conditions. Fragmentation in care and lack of awareness of the need to link medical and mental conditions have resulted in higher health care costs and lack of quality in the care received. These problems are of more concern and burden than the conditions themselves. Evidence-based treatment is available for nearly every disease or condition but implementation is inconsistent.

Medical conditions are more easily diagnosed than behavioral disorders. Behavioral/mental conditions cannot be diagnosed with traditional testing like blood tests, x-rays, and scans. There is no HgA1c to diagnose a mental illness. Mental conditions are typically diagnosed by patient self-report, health utilization data (claims for ED use and admissions and other outpatient access in the medical system), symptoms observed and reported, clinical interviews, and criteria-based scales.

A review of resource utilization will capture those with a mental health diagnosis. Reported symptoms and clinical interventions capture those who meet criteria for a mental disorder regardless of receiving a diagnosis or treatment. Of concern is that less than one-third of individuals meeting criteria for a mental disorder will actually receive condition-changing treatment. The prevalence of mental disorders must also be taken into account in the lifetime experiences of the individual.

The presence of comorbidities between mental and medical conditions is more common than not. Benjamin Druss and Elizabeth Reisinger Walker report that more than 80% of individuals with a mental health condition diagnosed by clinical interview also have at least one general medical condition, and 29% of individuals with a medical condition have mental health comorbidities (2011). They add:

- Individuals with diabetes are two times more likely to have depression versus those without diabetes.
- Individuals with asthma are two to three times more likely to have depression than those without asthma.
- Individuals with cardiovascular disease are 1.43 times more likely to have anxiety.

With every chronic medical condition, the likelihood of developing a comorbid depressive disorder diagnosed by a screening tool increases.
Based on the 1999 National Health Interview Survey, Druss and Walker continue:

- There is a 5% prevalence of depression when no chronic medical condition is present.
- There is a 10% prevalence of depression when two chronic medical conditions are present.
- There is a 12% prevalence of depression when three medical conditions are present. (2011)

Individuals with bipolar disorder or schizophrenia are three times more likely to have three or more chronic conditions. According to the RWJ Synthesis Report titled, “Mental Disorders and Medical Comorbidities,” “Medical disorders may lead to mental disorders, mental disorders may place a person at risk for mental disorders, and mental and medical disorders may share common risk factors.” When medical

Source: Data adapted from Alegria, Jackson, Kessler, and Takeuchi (2003).
conditions present with high symptom burden, depression is common. Examples include chronic back pain and migraines. By the same token, major depression can contribute to the development of medical conditions like cardiovascular disease (2011).

The Integrated Case Management Process

The integrated case management (ICM) process follows CMSA’s Standards of Practice for guidance and accountability in case management practice, and is designed to impact individuals with health complexity by a single point of contact, or primary case manager. Just as with any patient, the assessment identifies the patient’s needs in four primary domains: biological (medical), psychological (behavioral/mental), social, and health system. However, what should be the priority is the development of a trusting relationship with the patient. We are asking the patient to share with us intimate details of life. The patient must feel that he or she can trust us and believe we genuinely demonstrate empathy and concern for his or her well-being.

To begin working with patients in this manner, our approach should not be robotic or indifferent. The integrated case manager should begin a conversation that establishes who we are and our purpose for contact. The relationship between patients and case manager should be one of advocacy and support. Rather than jumping right in and interrogating patients about their diabetes or asthma, start the encounter by asking what is most important to them, what are their concerns, what worries do they have, what do they need help with; even asking, “So, how can I best help you?”

Individuals with health complexity typically have a long history of health and social challenges. Their experiences with the health care system may be less than satisfactory. Gaining patients’ trust is the only way they will be willing to share the intimate details of their lives and health.

An integrated assessment investigates history, current state, and future risk. History cannot be changed but may be a predictor of future risk. In the biological, social, and health system domains, we concern ourselves only with the past 6 months—what conditions and symptoms have been present during this time. An appendectomy or admission for pneumonia greater than 5 years ago really has no impact
on the patient’s current health; however, the presence of hypertension or diabetes will. These are conditions that regardless of when they were diagnosed are biological challenges. From the social perspective, we look at past disruptions in relationships, work history, residential stability, and presence of support. The last 6 months of health system history include a patient’s access to care and relationships with providers. For the patient’s status, we assess his or her ability and choices in access to care. The psychological domain is the exception. We look at the lifetime presence of any behavioral conditions as these do have an impact on status as well as future risk. The current status examines the presence of any mental or behavioral symptoms and any barriers that may prevent adherence to treatment.

The status of all four domains reviews symptoms and experiences in the last 30 days. Future risk for all domains requires the case manager to examine history and status to determine the level of risk the patient may experience over the next 3 to 6 months. The result of this comprehensive assessment assists the case manager and the patient in making decisions about where the greatest risk lies and where to begin working to mitigate that risk. This is where the process of care planning begins. The patient’s preferences and goals need to be considered the priority, unless of course the patient is at some significant life risk. Prioritizing goals and ability and willingness to implement actions to achieve those goals need to be discussed and negotiated with the patient.

The CMSA’s Integrated Case Management model uses an assessment tool, the ICM-CAG (Integrated Case Management Complexity Assessment Grid) which assists the case manager and patient in prioritizing risk. The tool walks us through the four domains, history, status using a scoring, and methodology that will define the risk. The risk scores are color coded making it very easy to identify the highest level of risk and areas of greatest concern.

- Green: no risk
- Yellow: requires monitoring
- Orange: attention required
- Red: immediate risk

Individuals with health complexities may have multiple needs. The results of the comprehensive assessment may reveal many areas
of risk. Addressing all of the immediate risks at one time may be overwhelming not only to the case manager but also to the patient. Prioritization of the immediate risks using good clinical judgment is required to develop a care plan that will result in success for the patient and the case manager. The presence of multiple risks may also require that the care plan and work with the patient be conducted in incremental steps. For example, a patient with uncontrolled diabetes, chronic obstructive pulmonary disease (COPD), and living in an abusive environment is at multiple risks. So, where to start? We cannot expect this patient to take medications, follow a diet, quit smoking, and move from the abuse all at one time. So, what needs to happen first? This is discussed and negotiated with the patient: “What do you think needs to happen first?” Likely helping the patient feel safe would be the primary concern; assisting the patient find a safe place to live will hopefully reduce fear, anxiety, and stress allowing for more of a focus on health. The full ICM process will be discussed in detail using case studies later in the manual.

Qualifications and Training

Case managers are licensed health care professionals or those who hold advanced degrees in health and human services. Experienced case managers are familiar with the processes related to assessment, care planning, advocacy, facilitation, and care coordination. Traditionally, case managers practice within the discipline with which they are most familiar or for which their clinical practice was focused. For example, a medical case manager with a strong background in maternal/child health works with women who have high-risk pregnancies. But if the pregnant patient is currently using heroin, the medical case manager will refer the patient to a behavioral health case manager to address the patient’s addiction. This means that two case managers are outreaching the patient instead of one single point of contact with whom the patient can develop a trusting relationship. Coincidentally, a behavioral health case manager is working with a patient who has had multiple admissions for psychotic breaks. The patient has not been taking medications as prescribed to manage schizophrenia. The lack of schizophrenic symptom management has also resulted in the patient developing a wound from
uncontrolled diabetes. Typically, the issue of uncontrolled diabetes and the wound would be addressed by a medical case manager; again, no single point of contact for the patient.

The ICM model requires case managers, regardless of background, to address all conditions and needs of a patient. Many case managers feel uncomfortable addressing conditions with which they are unfamiliar or do not routinely address. First and foremost, case managers must understand that they do not diagnose and do not treat. While it is understandable that a case manager may feel less than confident in addressing a less familiar condition, it is expected when practicing an integrated approach that the case manager take the initiative to understand all the patient’s conditions. This is part of the case manager’s professional growth and stewardship required to be an effective advocate and support. Learning about conditions is not the only strategy for being better prepared to support your patients. Consultations with peers who may have experience in the area where you do not can be most valuable. Your peers can share their experiences to help you better understand the patient’s conditions and suggest strategies that have worked. Consulting with medical directors will also result in guidance.

According to the RWJ Foundation Synthesis Project, the literature was reviewed to evaluate the effectiveness of case/care management; the key to successful case management programs and interventions include (Goodell et al., 2009):

- In-person encounters
  - Home visits
- Training and personnel
  - Specially trained case managers
  - Low workloads
  - Registered nurses (RNs) working as part of an interdisciplinary team
- Physician involvement
  - Case managers in the primary care setting are especially effective in facilitating collaboration with physicians
  - Case managers from payor organizations embedded in practices and clinics can achieve the same as case managers employed by the physician practice
• Informed caregivers
  ■ Includes family, long-term care providers, community health workers
  ■ Essential to assist with observation and reporting functional and cognitive decline
  ■ Collaborative support between caregivers and case managers

• Coaching
  ■ Teaching patients and caregivers how to recognize early warning signs of complications and worsening conditions
  ■ Provide strategies to promote management of conditions

Case managers assist patients and their support system in managing both behavioral and medical conditions through care coordination, support, advocacy, and mitigation of barriers. To function as integrated case managers, we need to be licensed health care professionals or have an advanced degree in a health and human services discipline. Ideally, case managers with experience will be better prepared for the challenges of multidimensional support of complex patients. Experience is an asset but additional training is also needed. Training should include:

• Motivational interviewing training to assist with decisions to make change
• Cross-disciplinary training in medical and behavioral conditions and an understanding of how conditions interact to cause complexity
• Relationship development for improved patient engagement

Clinical Versus Nonclinical Roles

Not every member of a health population will require case management. As discussed earlier, only a small percentage of a population will experience complexity. However, some others may need some level of health or social support from nonclinical care coordinators, health coaching, or short-term case management. In this manual, we are focusing on the most complex individuals of a population.
The RWJ Synthesis Report for Care Management for Patients with Complex Health Needs supports the recommendation we make that a case manager should function as part of a multidisciplinary team to support care and services for the complex patient (Goodell et al., 2009). Of added importance to remember, the triage process is essential to ensuring the complex patient is assigned the most appropriate primary case manager. This triage process should be based on the patient’s risk. Where does the greatest risk lie? In the behavioral domain or the medical domain? The primary diagnosis that is causing the greatest risk should guide the assignment of the primary case manager.

CASE STUDY 1

Julia is a 44-year-old with uncontrolled diabetes, daily blood sugars fluctuating between 50 before breakfast and 300 after dinner, a non-healing wound on her left foot, and chronic depression.

Should the primary case manager have a medical background or a behavioral background?

The greatest risk lies with the patient’s uncontrolled blood sugars. Severe fluctuations in blood sugar put the patient at risk of admission and worsening of the wound. However, the patient’s depression is likely contributing to her poor control. The case manager must work with the patient to discover how best to address her depression so that she can focus on diabetes management.

CASE STUDY 2

Roger has been admitted for heroin overdose three times in the last 6 months. He also has been diagnosed with COPD and has been to the ED for shortness of breath four times in the last year because he continues to smoke and does not use the long-acting inhaler prescribed by his PCP.

Should the primary case manager have a medical background or a behavioral background?

The greatest risk lies with a potential for death. Roger has already had three heroin overdoses in the last 6 months. If his substance abuse is not addressed, the next overdose could be fatal, so his primary case manager should be a behavioral health case manager. Addressing his smoking and medication nonadherence is important but unless
he stops heroin use, it is unlikely the COPD exacerbations will be controlled.

Cases such as these support the need for good triage practices that include critical thinking to make good clinical decisions. The primary case managers should also be supported by an interdisciplinary team. Case managers working with complex populations may be assigned very small caseloads as these patients take more time to engage and follow. They have high needs across the domains and if the primary case manager is to meet all the patient’s needs, a significant amount of time is required. The ICM model recommends that case care teams be developed within the case management organization or place of practice. The care team is made up of both clinical and nonclinical staff. The nonclinical staff can assist the primary case manager’s coordination of services like scheduling provider appointments, handling correspondence, and arranging for delivery of durable medical equipment (DME) or medical supplies. These tasks do not necessarily require patient contact but are essential for care coordination. In order to ensure effective use of resources, medical and behavioral case managers should spend their time working with clients and patients.

A suggested care team includes:

- Medical case managers
- Behavioral case managers
- Nonclinical support staff or case management extenders
- Community health workers
- Pharmacy staff
- Medical directors
- Health coaches

The medical and behavioral case managers support each other with their respective experiences. The nonclinical staff assists with coordination activities that do not require clinical expertise. Pharmacy staff assist with medication review and reconciliation. Community health workers can be the eyes and ears of the case manager if telephonic and can become peer supports for the patients. Medical directors guide the case managers by advising on best practice, evidence-based practice, and can be a liaison with providers. The members of the care team support each other while taking ownership of the patients they serve.
Mental Health Parity and Integrated Case Management

Historically, individuals with mental health conditions have been viewed as difficult to treat. Under the Affordable Care Act (ACA) passed in 2010, behavioral health services were included as one of the 10 essential benefits, meaning that insurers were required to cover mental health services equally to that of medical services.

In the United States, one in four Americans will experience a mental health condition each year, and approximately 50% of Americans will develop a mental disorder in their lifetimes while 28% will develop an addiction (Boerner, 2014). Individuals with behavioral issues and/or addictions visit the ED more frequently, are more likely to be admitted, and have a higher rate of readmission (2014). Nearly 80% of individuals admitted to the hospital have comorbid psychiatric disorders (2014). These disorders make management of physical conditions like diabetes, hypertension, or heart disease difficult and have poor outcomes. The ACA established an expectation that physicians would coordinate both physical and mental health services and treatment. There is evidence that demonstrates integration of care could save money and improve outcomes (2014).

The shortage of behavioral health providers significantly challenges the ability to coordinate behavioral and medical services. In large accountable care organizations (ACO), it is much easier as the disciplines are co-located. This is common in urban areas. The co-location of both medical and behavioral health professionals in clinics and primary care practices allows the patient to address all his or her needs in one visit rather than seeing multiple providers in multiple locations. An early study of collaborative care demonstrated a 42% drop in ED visits when primary care was offered in a behavioral health clinic (Boerner, 2014). In a Florida program, inpatient admissions were reduced from 17% to 10% when outpatient psychiatric care was better coordinated (2014).

For providers who are not integrated, it is much more difficult to demonstrate these kinds of outcomes because there are not enough behavioral specialists available. The National Alliance for Mental Illness (NAMI) reported in 2011 that more than half of all U.S. counties lacked even one psychiatrist, psychologist, or social worker (Boerner, 2014). The ACA provides coverage for behavioral health services but in many cases access to providers is limited or very limited. Another concern is reimbursement because many insurers have traditionally contracted
out behavioral services and employers have independently contracted with separate companies for these services. Mental health utilization practices may be stringent and coordination and collaboration with the medical sector are absent. These types of contractual arrangements threaten the ability to integrate care. Mental health specialist groups and independent companies are not working with primary care and usually document in a different documentation system or health record. Individual case managers are challenged with helping many patients access needed behavioral services timely and within close geographic proximity. Attempts to integrate care may become the responsibility of the case manager to facilitate and coordinate care between providers.

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Assessing the Pediatric Patient Using the Integrated Case Management Complexity Assessment Grid

Rebecca Perez
Kathleen Fraser

Love every child without condition, listen with an open heart, get to know who they are, what they love, and follow more often than you lead.

—Adele Devine, Flying Starts for Unique Children: Top Tips for Supporting Children With SEN or Autism When They Start School

OBJECTIVES

- Understand the Integrated Case Management (ICM) process for children/adolescents with health complexities
- Understand the similarities and differences between the adult and pediatric complexity assessment grids
- Understand the need for assessment of family issues related to pediatric caregiving
- Understand the professional case manager’s actions with the scores and a patient-centered plan of care
- Understand nursing documentation related to the ICM process
Adults are not exclusive in experiencing complexity. Pediatric patients can experience complexity as well, but our approach to support them is very different from that of the adult. As a result, the Case Management Society of America (CMSA) developed a version of the Integrated Complexity Assessment Grid for use with children and youth. This chapter outlines how best to address the risks that exist for children and adolescents experiencing complex medical and behavioral conditions that may be further complicated by social and health system barriers. Pediatric-integrated case management (PICM) follows the same standards of practice for case management. However, there exist unique challenges when assisting children/youth and their families with health complexity in addition to also having to consider the contributions of caregivers/parents, teachers, coaches, and peers in their child-specific assessments and care plan development. Children/youth are at as great a risk for multiple factors contributing to health complexity as adults; therefore, an approach to integrated pediatric case management parallels the approach taken with adults. This will allow case management programs that understand the importance of correcting mental health issues as a means of reversing persistent physical symptoms to include a child/youth component in their case management services, particularly if they have already decided to provide adult-integrated case management and have a child/youth population to serve as well.

**Basics of the Pediatric-Integrated Case Management Complexity Assessment Grid**

The pediatric version of the Integrated Case Management Complexity Assessment Grid (PIM-CAG) was originally developed with input from pediatric psychiatrists, pediatricians, child psychologists, and pediatric case managers under the guidance of the developers of the original Integrated Case Management Complexity Assessment Grid (IM-CAG). You will notice some overlap between the Adult CAG and the Pediatric CAG, but additional risk elements have been added to the PIM-CAG to be inclusive of the special needs of the child and adolescent. Like the ICM-CAG, the PIM-CAG is specifically developed for use by case managers rather than by treating practitioners. Once again, we emphasize that the role of case managers is to uncover barriers to improvement, coordinate care and services, advocate and support the patient so that he or she can eventually reach a level of
self-management. It is not our role to diagnose or treat, so it is not necessary to know all physical or mental health interventions that may be involved. With assessment and use of the PIM-CAG, we can identify the barriers preventing health improvement and work with the patient (if appropriate), family, guardian, or caregiver in obtaining the necessary care and services that will impact the child’s health and well-being. As with adults, one item could trigger multiple actions by the case manager involving more than one health domain. The PIM-CAG is used not only as a prioritization of needed interventions, it can also be used as a communication tool to be shared with the child’s support system as well as providers.

The PIM-CAG goes far beyond assessing risks in physical and mental health. It includes factors that influence the ability of the child or adolescent to maximize his or her health by assessing cognitive functioning, family relationships, relationships with friends, school experience, adverse life events, and the health and abilities of the parent/caregiver. What is most important to understand is that our approach to working with children and adolescents must be different. Children and adolescents are not small adults; their world view is very different; their needs are very different. So must be our approach to be helpful and effective.

Similarities and Differences Between the PIM-CAG and the IM-CAG

Like the ICM-CAG, the PIM-CAG is used to conduct an integrated case management assessment since it provides a method through which illness and life situation complexity can be prioritized by assigning levels of risk and then acted upon on behalf of the child/adolescent. We will review the risk elements as they pertain to the child and adolescent. For those who may be providing case management intervention to this population but are less familiar with conditions and challenges of the pediatric population, we encourage you to review Chapter 3 to learn more about behavioral challenges in children and then make sure you are familiar with how medical conditions are treated. Diabetes in a child will have nuances not found in the treatment of adults. Pediatric cancers and hematological disorders also are treated differently than in adults. For an adult, chemotherapy may be administered in the outpatient setting, but a child may require an acute care admission to receive treatment. Remember it is your professional responsibility to understand the conditions your patients face.
An additional caveat to working with the pediatric population is the need to focus on parents, guardians, and caregivers. If the individuals responsible for the health and well-being of the child are not functionally capable of meeting the child’s needs, you may have some very difficult interventions to consider. The parent/guardian/caregiver may need the interventions of a case manager for assistance in managing their own challenges so that they can be a support to the child. You may also find parents/guardians/caregivers who are not providing a safe environment for the child; perhaps the child is in danger of injury; you will be required to report to authorities these concerns. This can be uncomfortable, especially if you have been working with the child’s support system for some time. Ultimately, the child is your patient, and you must always act in the child’s best interest.

The Child/Adolescent and Caregivers/Parents Interview and Assessment

Integrated case management is based on the relationship developed between the case manager and the patient to support health improvement and reduce impairment. The PIM-CAG is scored similar to the ICM-CAG based on the assessment discussion with the parent/guardian/caregiver. Depending on the child, age, and parental consent, the child may participate in the assessment and care-planning processes. For adolescents, they should be part of the assessment discussion in so far as they can understand the issues and parents are accepting of the inclusion.

As part of the usual process, the case manager should review any clinical notes and/or claims information available about the child/youth. One most important task to complete before working with any child or adolescent is to determine who the legal guardians are, then define any issues related to confidentiality and how they will be honored, and determine the expectations of the parent/guardian and child or adolescent. Are there any issues with parental relationships like separation or divorce, custody, or disagreements about how to address the child’s needs? If the patient is an adolescent, how will you work with the parent/guardian when the adolescent wishes to participate in his or her care? Parents/guardians may want to shield the child/adolescent from worry. Negotiation with all concerned needs to occur to ensure participation and engagement in case management.
### TABLE 5.1 Pediatric Integrated Case Management Assessment Grid Scoring Sheet

<table>
<thead>
<tr>
<th>Date:</th>
<th>HEALTH RISKS AND HEALTH NEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong></td>
<td><strong>HISTORICAL</strong></td>
</tr>
<tr>
<td><strong>CURRENT STATE</strong></td>
<td><strong>VULNERABILITY</strong></td>
</tr>
</tbody>
</table>

**Total Score**

<table>
<thead>
<tr>
<th>Complexity Item</th>
<th>Score</th>
<th>Complexity Item</th>
<th>Score</th>
<th>Complexity Item</th>
<th>Score</th>
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<tbody>
<tr>
<td>Biological Domain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chronic Illness</td>
<td></td>
<td>Symptom Severity/Impairment</td>
<td></td>
<td>Complications and Life Threat</td>
<td></td>
</tr>
<tr>
<td>Diagnostic Difficulty</td>
<td></td>
<td>Adherence Ability</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Psychological Domain</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barriers to Coping</td>
<td></td>
<td>Resistance to Treatment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health History</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitive Development</td>
<td></td>
<td>Mental Health Symptoms</td>
<td></td>
<td>Learning and/or Mental Health Threat</td>
<td></td>
</tr>
<tr>
<td>Adverse Developmental Events</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Social Domain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Ability</td>
<td></td>
<td>Residential Stability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family and Social Relationships</td>
<td></td>
<td>Child/Adolescent Support System</td>
<td></td>
<td>Family/School/Social System Vulnerability</td>
<td></td>
</tr>
<tr>
<td>Caregiver/Parent Health and Function</td>
<td></td>
<td>Caregiver/Family Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caregiver/Family Support</td>
<td></td>
<td>School and Community Participation</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Health System Domain</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to Care</td>
<td></td>
<td>Getting Needed Services</td>
<td></td>
<td>Health System Deterrents</td>
<td></td>
</tr>
<tr>
<td>Treatment Experience</td>
<td></td>
<td>Provider Collaboration</td>
<td></td>
<td></td>
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</tbody>
</table>

**Scoring System**

- **Green:** 0 = no vulnerability or need to act
- **Yellow:** 1 = mild vulnerability and need for monitoring or prevention
- **Orange:** 2 = moderate vulnerability and need for action or development of intervention plan
- **Red:** 3 = severe vulnerability and need for immediate action or immediate intervention plan

(continued)
<table>
<thead>
<tr>
<th>Date:</th>
<th>HEALTH RISKS AND HEALTH NEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>HISTORICAL</td>
</tr>
<tr>
<td>Biological Domain Items</td>
<td>Psychological Domain Items</td>
</tr>
<tr>
<td><strong>Chronic Illness</strong></td>
<td>Presence of chronic physical illness</td>
</tr>
<tr>
<td>Mental Health History</td>
<td>Prior mental condition</td>
</tr>
<tr>
<td><strong>Diagnostic Difficulty</strong></td>
<td>Difficulty getting a condition diagnosed; multiple providers have been consulted; multiple diagnostic tests completed</td>
</tr>
<tr>
<td><strong>Adverse Developmental Events</strong></td>
<td>Early adverse physical and mental health events: complications during pregnancy; other adverse event that took place early in childhood resulting in interrupting cognitive or behavioral development; trauma</td>
</tr>
<tr>
<td><strong>Symptom Severity/Impairment</strong></td>
<td>Physical illness symptom severity and impairment; do the physical symptoms result in a disability, i.e., unable to care for self, ADL, IADL; unable to attend school or participate in any school-related activity, e.g., physical education</td>
</tr>
<tr>
<td><strong>Adherence Ability</strong></td>
<td>Current difficulties in the ability to follow a physician’s treatment plan by the parent/guardian or the child</td>
</tr>
<tr>
<td><strong>Complications and Life Threat</strong></td>
<td>Risk of physical complications and life threat if case management is stopped</td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>Date:</th>
<th>HEALTH RISKS AND HEALTH NEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>HISTORICAL</td>
</tr>
</tbody>
</table>

**Social Domain Items**

<table>
<thead>
<tr>
<th>Health System Domain Items</th>
</tr>
</thead>
</table>

**Learning Ability**

- History/presence of learning difficulties, ability to participate in learning activities

**Family and Social Relationships**

- Stability in parent/guardian relationships; ability to make friends, socialize with peers

**Caregiver Health and Function**

- Caregiver/parent physical and mental health condition and function; ability to support the health and well-being of the child/adolescent

**Residential Stability**

- Food and housing situation; safe place to live, free from abuse, neglect; resources are available to support safe living, financial resources for food, utilities, rent, mortgage

**Child/Adolescent Support System**

- Child/youth support system, who is available to support the child?

**Caregiver/Family Support System**

- Caregiver/parent support system; who provides social support to family/caregiver?

**School and Community Participation**

- Attendance, achievement, and behavior at school

**Family/School/Social Vulnerability**

- Risk for home/school support or supervision needs if case management is stopped

**Getting Needed Services**

- Logistical ability to get needed care: getting appointments, use of the ED instead of seeking outpatient care

**Provider Collaboration**

- Communication among providers to ensure coordinated care

**Treatment Experience**

- Experience with doctors, hospitals, or other areas of the health system

**Access to Care**

- Access to care and services as they relate to insurance coverage, financial responsibility, language, geography; use of the ED instead of establishing a relationship with a physician or other provider

**Experience with doctors, hospitals, or other areas of the health system**

**ADL, activities of daily living; ED, emergency department; IADL, instrumental activities of daily living; SMI, serious mental illness.**
intervention. Very young children will not likely be involved in the assessment and care-planning process. Older children and adolescents may wish to participate and the negotiation that must take place includes what the parent/guardian is comfortable with the child knowing, and how much autonomy will be afforded to the child/adolescent. It is natural for parents and caregivers to want to protect, but we can also help them understand that taking responsibility for one’s health cannot start too soon. Allowing the child/adolescent to be actively involved in his or her health will result in improved self-management as he or she grows and matures. We must be sensitive to an adolescent’s developing independence. Some may welcome complete transparency with the parent/guardian while others may want to keep some information confidential. At the beginning of the relationship development, the parent/guardian and patient need to understand that information that may be harmful or helpful will be disclosed only as appropriate. States may have very specific laws and regulations related to the age of consent or how information should be shared between parent/guardian and patient. You must make yourself aware of and familiar with the laws in the jurisdiction in which you practice.

Children and adolescents experiencing health complexity will likely need long-term case management intervention. The assessment process may take even more time than we would typically see with the complex adult patient. It may take more time to understand the relationships between the patient, parent/guardians, other family members, providers, school, and friends. While more effort is required by the case manager, relationship development will likely be more successful and is necessary to be effective in assisting the child/adolescent to move toward improved health.

The PIM-CAG contains 25 items in four domains, whereas the IM-CAG contains 20 items in four domains. The scoring range for the PIM-CAG, therefore, is from 0 to 75 while the scoring range for the IM-CAG is from 0 to 60. You will notice that risk elements in the social domain are expanded to address the special needs of the child/adolescent. Risk scoring remains the same; however, the time frames differ for this population. Historical items will examine the child/adolescent’s entire life except for “Access to Care” which examines the last 6 months. Current risk elements will examine the last 30 days.
Future risk/vulnerability will examine the next 3 to 6 months just as the Adult CAG.

The five new items that have been added to the PIM-CAG include: Cognitive Development, Adverse Developmental Events, School Functioning, Caregiver/Parent Health and Function, and Child/Youth Support. These five items recognize and capture the complexity that may be experienced by children and adolescents.

While cognitive deficits can occur in adults (e.g., various dementias), these differ in the child or adolescent. This risk element encompasses the presence of intellectual disabilities, as well as the spectrum of developmental disorders like autism, or pervasive developmental disorder. Children and adolescents with deficits in cognitive development may need specialized educational settings, support personnel in the home, and assistance with socialization since development delay is not understood and is often handled ineffectively due to lack of understanding by nonprofessionals.

Adverse Developmental Events has been added to the Psychological Domain to bring awareness of both physical and behavioral exposures that have historically impacted, or may impact in the future, cognitive abilities, emotions, or behaviors. These include, but are not limited to, toxic exposures like lead, traumatic brain injuries, trauma such as physical or psychological abuse and neglect, or other central nervous system illnesses that may occur because of birth trauma, like cerebral palsy. While some of the adverse events are the result of a physical or biological event, we typically see a greater risk in behavioral or mental illness symptoms. If there are coexisting physical symptoms or conditions, these can be captured in the Biological Domain.

Children and adolescents do not work in the traditional sense—their “work” is attending school and participating in school and community activities like school clubs, sports, Boy and Girl Scouts, 4 H, and so on. The two risk elements added to the assessment are historical School Functioning and current School and Community Participation. We examine school performance that includes their ability to be successful in school, attendance, and behavior at school and with peers. If risk is assessed, we may need to assist in facilitating more involvement by parents/guardians, school administrators, and health providers. Know that past performance in school will be an indicator of future performance.
Caregiver/Parent Health and Function has been added to provide a general assessment of the person(s) responsible for the child or adolescent’s health, well-being, and safety. We want to better understand the ability of the parent/guardian to meet the needs of a child or adolescent with complex health needs. If the parent/guardian is incapable of meeting the child’s needs, we must facilitate actions and interventions to compensate for any lack of ability on the part of the parent/caregiver. This element demonstrates the strengths of the parent/caregiver, or may indicate the need for more significant intervention to keep a child safe.

Caregiver/Family Support is essentially the same as the ICM-CAG Social Support element. We evaluate who else in the child or adolescent’s life can support, mentor, and contribute to the growth and development of the child such as a grandparent or other family member, coach, or teacher who is actively involved in the child’s life. We also assess the presence of support in case of emergency or crisis: Who is available to assist the parent/guardian in case of illness or when other urgent/emergent situations arise?

Please refer to the grid in Table 5.1 to guide your risk assessment for the risk elements that mirror the ICM-CAG. Let’s examine the risk elements that are unique to the pediatric population and examples of actions to mitigate risk:

### Psychological Domain

#### Cognitive Development

0 = No cognitive impairment
- No action required

1 = Possible developmental delay or immaturity; low IQ
- Assist in establishing level of impairment, including capacity of child to communicate physical needs and symptoms by coordinating referrals for appropriate testing
- Discuss level of impairment and needs with caregivers, educator, and the pediatrician to ensure appropriate placement in school system
- Assess need for remedial educational assistance and home support; facilitate completion of an individual educational plan (IEP) to meet the child’s educational needs
• Maintain communication with the school system and medical providers regarding the child’s progress with learning

2 = Delayed development; mild or moderate cognitive impairment
  • Complete actions under Risk Level 1
  • Review performance/adjustment issues with school facility; involve social services if needed if there is a lack of improvement
  • Assess and assist with home support for child/youth based on functional capabilities and respite for caregivers/parents related to assimilation of social skills; provide relief for parents/guardians from day-to-day caregiving
  • Assess and share child/youth’s ability to communicate

3 = Severe and pervasive developmental delays or profound cognitive impairment
  • Complete actions under Risk Levels 1 and 2
  • Ensure parents/guardian have access to needed resources and supports to deal with severe developmental delays
  • In extreme circumstances, placement may be required;ork with providers and parents/guardian to facilitate such a difficult transition

Adverse Developmental Events

0 = No identified developmental traumas or injuries (e.g., physical or sexual abuse, meningitis, lead exposure, drug abuse, exposure to infection, or other untoward prenatal exposures)
  • No action required

1 = Traumatic prior experiences or injuries with no apparent or stated impact on child/youth
  • While at the time of assessment there may appear to be no untoward effects of early trauma or exposure; observation is warranted as the child grows and develops

2 = Traumatic prior experiences or injuries with potential relationship to impairment in child/youth
  • Facilitate needed testing and evaluation for the extent that the trauma or exposure has affected the child
Facilitate appropriate interventions to reduce the resulting effects of the trauma or exposure

3 = Traumatic prior experiences with apparent and significant direct relationship to impairment in child/youth

- Complete actions under Risk Level 2
- Urgently coordinate needed services to address the impairments experienced due to trauma and exposures

Social Domain
Learning Ability

0 = Performing well in school with good achievement, attendance, and behavior
- No action required

1 = Performing adequately in school although there are some achievement, attendance, and behavioral problems (e.g., missed classes, pranks)
- Encourage parents/caregivers to become more closely involved with the child’s teachers and administrators

2 = Experiencing moderate problems with school achievement, attendance, and/or behavior (e.g., school disciplinary action, few school-related peer relationships, academic probation)
- Recommend parents/guardians closely work with teachers and counselors to determine strategies to improve achievement, attendance, and reduce disruptive behavior
- May need to refer to additional counseling or tutoring resources outside of school

3 = Experiencing severe problems with school achievement, attendance, and/or behavior (e.g., homebound education, school suspension, violence, illegal activities at school, academic failure, school dropout, disruptive peer group activity)
- Urgently assist with facilitation of additional resources and referrals for counseling, tutoring
Family and Social Relationships

0 = Stable nurturing home, good social and peer relationships
   • No action is required

1 = Mild family problems, minor problems with social and peer relationships (e.g., parent–child conflict, frequent fights, marital discord, lacking close friends)
   • Offer to facilitate counseling to address family problems or the child’s challenges with making friends

2 = Moderate level of family problems, inability to initiate and maintain social and peer relationships (e.g., parental neglect, difficult separation/divorce, alcohol abuse, hostile caregiver, difficulties in maintaining same-age peer relationships)
   • Collaborate with providers and school to encourage family counseling or counseling for the child’s inability to maintain relationships
   • Involve social services to assess family dysfunction and risk to child/adolescent’s safety

3 = Severe family problems with disruptive social and peer relationships (e.g., significant abuse, hostile child custody battles, addiction issues, parental criminality, complete social isolation, little or no association with peers)
   • Immediately notify social services or appropriate authorities if there is a risk of danger to the welfare of your patient or other family member
   • Notify the patient’s providers of concerns with social isolation; facilitate referral to appropriate mental health providers

Caregiver/Parent Health and Function

0 = All caregivers healthy
   • No action required

1 = Physical and/or mental health issues, including poor coping skills, and/or permanent disability, present in one or more caregiver, which do not impact parenting
• Discuss with parent/guardian the challenges and contributors to difficulty in coping and what, if any, resources are available to assist with coping
• Assess any needed assistance related to existing disabilities
• Provide resources to the parent/guardian to obtain defined assistance

2 = Physical and/or mental health conditions, including disrupted coping resources, and/or permanent disability, present in one or more caregiver, that interfere with parenting
  • Complete actions under Risk Level 1
  • Assist parent/guardian in making needed appointments for counseling and other mental health services
  • Provide information on resources that may assist the parent/guardian with compensation for any physical disability

3 = Physical and/or mental health conditions, including disrupted coping styles, and/or permanent disability, present in one or more caregiver, which prevent effective parenting and/or create a dangerous situation for the child/youth
  • Immediately contact the patient’s providers to advise of a dangerous situation
  • Work with social services to ensure the patient has a safe environment, even if just temporary
  • Reassure the parent/caregiver that you will assist in making sure there is no interruption in the care and services received by the patient

Child/Adolescent Support
0 = Supervision and/or assistance readily available from family/caregiver, friends/peers, teachers, and/or community social networks (e.g., spiritual/religious groups) at all times
  • No action required

1 = Supervision and/or assistance generally available from family/caregiver, friends/peers, teachers, and/or community social networks; but possible delays
• Ascertain who besides parent/guardian are able to provide support, caring, and supervision such as friends or teachers
• Create a plan with the parent/caregiver so that these supports are available when needed

2 = Limited supervision and/or assistance available from family/caregiver, friends/peers, teachers, and/or community social networks
• Complete actions under Risk Level 1
• Look for alternative supports, like after-school care or community activities

3 = No effective supervision and/or assistance available from family/caregiver, friends/peers, teachers, and/or community social networks at any time
• Complete actions under Risk Level 2
• Get permission to speak with extended family members to ascertain their ability to support the patient
• Work with school and social services to see what programs might be available to address the patient’s need for additional emotional support

School and Community Participation

0 = Attending school regularly, achieving and participating well, and actively engaged in extracurricular school or community activities (e.g., sports, clubs, hobbies, religious groups)
• No action required

1 = Average of 1 day of school missed/week and/or minor disruptions in achievement and behavior with few extracurricular activities
• Discover the reason for missed school days
• Strategize with parent/caregiver on how to prevent missed school days
• Work with parent/guardian and patient to learn what the child is interested in, for example, hobbies, sports, games
• Encourage parent/guardian to connect patient to activities

2 = Average of 2 days or more of school missed/week and/or moderate disruption in achievement or behavior with resistance to extracurricular activities
- Complete actions under Risk Level 1
- Contact patient’s school to help facilitate parent/guardian communication with teachers and school counselors to develop a plan to improve attendance, performance, and participation

3 = Truant or school nonattendance with no extracurricular activities and no community connections
- Complete actions under Risk Level 1 and 2 with plan for urgent implementation

**CASE STUDY**

Now let us examine an example of an integrated assessment for a complex pediatric patient (Table 5.2). Danny is an 8-year-old boy currently residing with his second foster family. Danny was placed in the foster care system at age 5 after his mother was sentenced to federal prison on drug-trafficking charges. Danny was diagnosed with attention deficit hyperactivity disorder (ADHD) at age 3 while attending a Head Start Program. At age 6, he was diagnosed with von Willebrand’s disease after an injury at school. After this incident, his first foster parent asked that Danny be placed elsewhere because she found his behavior and the new diagnosis of a hematological disorder far too stressful and beyond her capabilities.

Danny has struggled in school due to his ADHD. He is often separated from his class due to disruptive behavior and is extremely active, finding it difficult to sit or be inactive for any length of time. There is also concern that he may have a learning disability as his reading level does not equate to the expected grade level. To date, he has not had any testing. He loves to play outdoors, and play sports, especially football and baseball, but gets very frustrated and angry when he is not allowed to play. He has been to the emergency room three times in the last 6 months due to injuries with one resulting in an admission due to excessive bleeding from a fall at school; the emergency department (ED) visits addressed large hematomas that occurred while playing football and jumping off a swing. He has required infusion of factors to address hematomas and the bleeding. Danny has a pediatrician and oncologist and his foster family ensures he keeps all appointments. They are interested in getting home infusions for factors rather than
going to the hospital or hospital outpatient clinic. He becomes very anxious and agitated when he sees he is going to the hospital. Danny has health coverage through his state’s Medicaid program for Children with Special Health Care Needs. There are no concerns with access to needed care and services.

Danny has been with his new foster family for 2 years. Sharon and Bill are committed to Danny and want to provide him with a safe and loving home. They admit his behaviors are challenging and sometimes are overwhelmed because he is so active and they fear that he will continue to injure himself. But their priority is to make sure Danny feels secure and loved and to better address his ADHD so that he can feel successful in school and learn to better control his impulses so that he does not suffer significant injuries. Sharon and Bill would like to see if his needed infusions for factors could be administered at home rather than in the hospital setting and would like to find some additional support outside of school to address his ADHD. At present, Danny is not taking any medication to address ADHD symptoms, but Bill and Sharon wonder if medication might help Danny do better in school.

**Biological Domain**

- **Chronic Illness = 2**: There is presence of a serious medical illness for which there is no cure and which requires immediate intervention
- **Diagnostic Difficulty = 1**: Condition was easily diagnosed after traumatic injury
- **Symptom Severity = 2**: Condition requires urgent intervention when a bleeding event occurs; requires implementation of safety measures to prevent bleeding events
- **Adherence Ability = 2**: Danny’s foster parents are able to and do adhere to Danny’s treatment plan but Danny’s behaviors make it challenging to prevent injury
- **Complications and Life Threat = 3**: Danny requires urgent interventions to prevent life threat. Without case management intervention to assist with needed care coordination, Danny is at risk of death from hemorrhaging
TABLE 5.2 Pediatric Integrated Complexity Assessment Grid Scoring Sheet

<table>
<thead>
<tr>
<th>Date:</th>
<th>HEALTH RISKS AND HEALTH NEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Danny</td>
<td>HISTORICAL</td>
</tr>
<tr>
<td>Total Score = 43</td>
<td>Complexity Item</td>
</tr>
<tr>
<td>Biological Domain</td>
<td>Chronic Illness</td>
</tr>
<tr>
<td></td>
<td>Diagnostic Difficulty</td>
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<td>Psychological Domain</td>
<td>Barriers to Coping</td>
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<td>Mental Health History</td>
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<td>Cognitive Development</td>
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<td>Adverse Developmental Events</td>
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<td>Social Domain</td>
<td>Learning Ability</td>
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<td>Family and Social Relationships</td>
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<td>Caregiver/Parent Health and Function</td>
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<td>Health System Domain</td>
<td>Access to Care</td>
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<td>Treatment Experience</td>
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Scoring System
- Green: 0 = no vulnerability or need to act
- Yellow: 1 = mild vulnerability and need for monitoring or prevention
- Orange: 2 = moderate vulnerability and need for action or development of intervention plan
- Red: 3 = severe vulnerability and need for immediate action or immediate intervention plan
Psychological Domain

Barriers to Coping = 2: Danny has exhibited anger and frustration because he is not allowed to play sports. He does not understand why and acts out as a result.

Mental Health History = 2: Danny has been diagnosed with ADHD without any known treatment.

Cognitive Development = 2: Danny’s reading level does not equal his school grade level. It appears no testing has been done to assess a learning disability.

Adverse Developmental Events = 2: Danny was removed from his mother’s care and custody at age 4 and was placed in the foster care system. It is unknown if Danny’s mother used substances during her pregnancy; if so, it could be a contributor to a possible learning disability.

Resistance to Treatment = 0: Danny’s foster parents are actively involved in Danny’s care and want to be more proactive in addressing his challenges.

Mental Health Symptoms = 2: Danny’s lack of attention and hyperactivity have resulted in poor school performance and injury. He is unable to sit quietly for any length of time.

Mental Health Threat = 3: Unless Danny’s behaviors are better managed, he is at risk of continued delayed development as well as physical risk.

Social Domain

Learning Ability = 2: Danny’s reading level does not equate to the expected school grade level. There is no known learning disability but no testing has occurred.

Family and Social Relationships = 3: The effects of removal from his mother’s care at a young age is unknown. He has been in the care of two foster care families in 4 years. His first foster care guardian could not manage his behaviors or medical condition. Any other family connections are unknown.

Caregiver/Parent Health and Function = 2: Danny’s mother was convicted of felony drug trafficking and sent to prison; as a result, Danny was placed in the foster care system. His first foster parent could not manage his behavior or medical condition. His current foster parents
seem better equipped and prepared to care for him, but this history is essential for any possible future vulnerability.

Residential Stability = 0: Danny’s current foster parents are able to meet all his needs for a safe environment.

Caregiver/Family Support = 1: Danny’s current foster family appears very supportive and caring, but other available supports to Danny are unknown.

School and Community Participation = 2: Danny regularly attends school except for physical health events. He loves to play sports but these are risky activities in his circumstance. Danny has no other known interests or hobbies.

Family/School/Social System Vulnerability = 2: There is need to assist the foster care family to find support for them so that they can continue to care for Danny. In order to improve his school successes, additional resources need to be implemented and there is a need to find social activities that Danny enjoys but do not put him at risk of injury.

Health System Domain

Access to Care = 0: Danny has health coverage through his state’s program for children.

Treatment Experience = 0: There is no evidence of negative experiences with providers.

Getting Needed Services = 2: Danny receives the care he needs but his foster parents are interested in reducing ED visits and inpatient (IP) admissions by coordinating infusions of factor at home when needed. Danny has not received any treatment for his ADHD and his foster parents are also interested in exploring treatment options.

Provider Collaboration = 0: There is no evidence that Danny’s providers are not in good communication.

Health System Deterrents = 2: Without case management assistance, there may be delays in getting home infusion coordinated and discussions related to ADHD treatment.