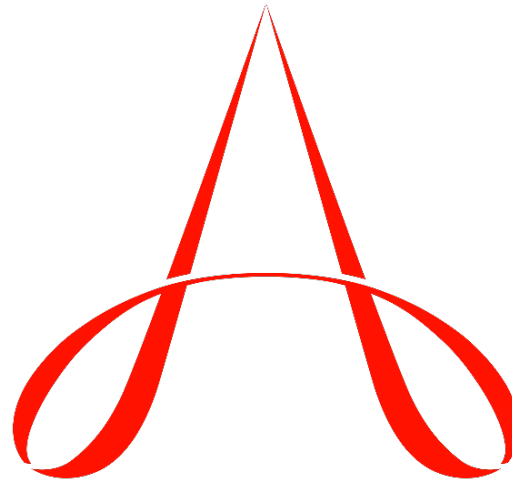


# Clinical Informatics Milestones

The Accreditation Council for Graduate Medical Education



ACGME

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First Revision: August 2014

# Clinical Informatics Milestones

The Milestones are designed only for use in evaluation of fellows in the context of their participation in ACGME-accredited residency or fellowship programs. The Milestones provide a framework for the assessment of the development of the fellow in key dimensions of the elements of physician competency in a specialty or subspecialty. They neither represent the entirety of the dimensions of the six domains of physician competency, nor are they designed to be relevant in any other context.

## **Clinical Informatics Milestones**

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## Understanding Milestone Levels and Reporting

This document presents the Milestones, which programs use in a semi-annual review of resident/fellow performance, and then report to the ACGME. Milestones are knowledge, skills, attitudes, and other attributes for each of the ACGME Competencies organized in a developmental framework. The narrative descriptions are targets for resident/fellow performance throughout their educational program.

Milestones are arranged into levels. Tracking from Level 1 to Level 5 is synonymous with moving from novice to expert resident/fellow in the specialty or subspecialty. For each reporting period, the Clinical Competency Committee will review the completed evaluations to select the milestone levels that best describe each learner's current performance, abilities, and attributes for each subcompetency.

These levels *do not* correspond with post-graduate year of education. Depending on previous experience, a junior resident/fellow may achieve higher levels early in the educational program just as a senior resident/fellow may be at a lower level later in the educational program. There is no predetermined timing for a fellow to attain any particular level. Residents/Fellows may also regress in achievement of their milestones. This may happen for many reasons, such as over scoring in a previous review, a disjointed experience in a particular procedure, or a significant act by the resident/fellow.

Selection of a level implies the resident/fellow substantially demonstrates the milestones in that level, as well as those in lower levels (see the diagram on page v).

## Additional Notes

Level 4 is designed as a graduation *goal* but *does not* represent a graduation *requirement*. Making decisions about readiness for graduation and unsupervised practice is the purview of the program director. Furthermore, Milestones 2.0 include revisions and changes that preclude using Milestones as a sole assessment in high-stakes decisions (i.e., determination of eligibility for certification or credentialing). Level 5 is designed to represent an expert resident/fellow whose achievements in a subcompetency are greater than the expectation. Milestones are primarily designed for formative, developmental purposes to support continuous quality improvement for individual learners, education programs, and the specialty. The ACGME and its partners will continue to evaluate and perform research on the Milestones to assess their impact and value.

Examples are provided for some milestones within this document. Please note: the examples are not the required element or outcome; they are provided as a way to share the intent of the element.

Some milestone descriptions include statements about performing independently. These activities must occur in conformity to ACGME supervision guidelines as described in the Program Requirements, as well as to institutional and program policies. For example, a fellow who performs a procedure independently must, at a minimum, be supervised through oversight.

A Supplemental Guide is also available to provide the intent of each subcompetency, examples for each level, assessment methods or tools, and other available resources. The Supplemental Guide, like examples contained within the Milestones, is designed only to assist the program director and Clinical Competency Committee, and is not meant to demonstrate any required element or outcome.

Supplemental Guides and other resources are available on the Milestones page of each specialty section of the ACGME website. On [www.acgme.org](http://www.acgme.org), choose the applicable specialty under the “Specialties” menu, then select the “Milestones” link in the lower navigation bar.

The diagram below presents an example set of milestones for one sub-competency in the same format as the ACGME Report Worksheet. For each reporting period, a fellow’s performance on the milestones for each sub-competency will be indicated by selecting the level of milestones that best describes that fellow’s performance in relation to those milestones.

Patient Care 2: Existing and Emerging Data Sources				
<ul style="list-style-type: none"> <li>• Access and incorporate information from emerging data sources (e.g., imaging, bioinformatics, internet of things (IoT), patient-generated, social determinants).</li> <li>• Assess and prioritize the integration of data from medical devices (e.g., pumps, telemetry monitors, consumer devices) into information systems.</li> </ul>				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Describes opportunities and challenges to the acquisition and use of emerging data sources</p> <p>Describes medical device data formats, types, and architecture</p>	<p>Creates a plan to analyze and develop knowledge from emerging data sources</p> <p>Defines and electronically accesses medical device data</p>	<p>Analyzes and develops knowledge from emerging data sources</p> <p>Extracts and analyzes data from medical devices</p>	<p>Implements specialty-specific systems to access and incorporate emerging data sources into the EHR</p> <p>Assesses and prioritizes the integration of data from medical devices</p>	<p>Accesses and incorporates information from emerging data sources</p> <p>Develops improvements to integration and use of medical device data</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Comments:</p> <p style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></p>				

Selecting a response box in the middle of a level implies that milestones in that level and in lower levels have been substantially demonstrated.

Selecting a response box on the line in between levels indicates that milestones in lower levels have been substantially demonstrated as well as **some** milestones in the higher level(s).

Patient Care 1: Consumer Informatics Applications, Portals, and Telehealth				
<ul style="list-style-type: none"> <li>Develop, implement, evaluate, and/or integrate portals and other consumer-facing health informatics applications (e.g., disease management, patient education, behavior modification)</li> <li>Participate in the design, evaluation, implementation, and/or support of telehealth and health information systems</li> </ul>				
Level 1	Level 2	Level 3	Level 4	Level 5
Discusses the basis for a consumer-facing health informatics application	Identifies a use case for a consumer-facing health informatics application and deduces required functionalities	Applies tools for a consumer-facing health informatics application	Designs a consumer-facing health informatics application prototype	Implements or leads implementation of a consumer-facing health informatics application
Describes the key components and processes of telehealth, portals, and health information systems	Identifies a use case for telehealth, portals, and health information systems and describes workflow and functionalities	Evaluates applications for telehealth, portals, and health information systems	Develops improvements to existing telehealth, portals, and health information system applications	Designs and implements telehealth, portals, and health information systems
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">                     Not Yet Completed Level 1 <input type="checkbox"/>                      Not Yet Assessable <input type="checkbox"/> </div>				

Patient Care 2: Existing and Emerging Data Sources				
<ul style="list-style-type: none"> <li>• Access and incorporate information from emerging data sources (e.g., imaging, bioinformatics, internet of things (IoT), patient-generated, social determinants)</li> <li>• Assess and prioritize the integration of data from medical devices (e.g., pumps, telemetry monitors, consumer devices) into information systems</li> </ul>				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes opportunities and challenges to the acquisition and use of emerging data sources	Creates a plan to analyze and develop knowledge from emerging data sources	Analyzes and develops knowledge from emerging data sources	Implements specialty-specific systems to access and incorporate emerging data sources into the electronic health record (EHR)	Accesses and incorporates information from emerging data sources
Describes medical device data formats, types, and architecture	Defines and electronically accesses medical device data	Extracts, stores, and analyzes data from medical devices	Assesses and prioritizes the integration of data from medical devices	Develops improvements to integration and use of medical device data
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>			Not Yet Completed Level 1	<input type="checkbox"/>
			Not Yet Assessable	<input type="checkbox"/>



<b>Medical Knowledge 1: Project Management</b>				
Leverage the processes and principles of project management to facilitate the successful completion of projects				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes basic project management principles and identifies resources and tools for projects	Identifies suitable areas to apply project management tools	Designs a project, leveraging project management principles	Implements a project using project management principles	Manages a project from initiation to completion, including scope, resources, and timeline
Plans and develops a project idea	Creates and leads a team	Sets deadlines and monitors project progress according to the project plan	Addresses and solves problems	Successfully manages customer expectations and evaluates projects
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not Yet Completed Level 1 <input type="checkbox"/>
				Not Yet Assessable <input type="checkbox"/>

<b>Medical Knowledge 2: Health Information Technology (HIT) Knowledge of Current and New Testing, Implementation, and Monitoring</b> <ul style="list-style-type: none"> <li>Plan and/or participate in HIT implementations and upgrades</li> <li>Implement, integrate, monitor, evaluate, and maintain EHR and/or applied HIT systems, in collaboration with Information Technology (IT) staff members, based on clinical expertise and best practice to support optimum clinical workflow</li> </ul>				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Discusses the features and functionalities of EHRs and other clinical information systems</p> <p>Possesses basic knowledge of HIT systems and their integration into the enterprise</p> <p>Demonstrates basic knowledge of HIT industry standards and ontologies</p>	<p>Conducts requirement specifications</p> <p>Defines best practices for EHR implementation and maintenance</p> <p>Identifies and maintains stakeholder expectations</p>	<p>Participates in the system selection process using shared principles for the selection</p> <p>Collaborates with members of an interprofessional clinical informatics team to implement, integrate, monitor, or evaluate the EHR or other clinical information systems</p> <p>Designs and implements solutions</p>	<p>Participates in leadership of the project group</p> <p>Demonstrates leadership skills during implementation projects</p> <p>Evaluates projects and provides solutions</p>	<p>Leads project groups in the design, implementation, and upgrade of EHRs and other clinical information systems</p> <p>Leads the evaluation a of clinical informatics project related to EHRs and other clinical information systems</p> <p>Provides knowledge management to existing solutions</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not Yet Completed Level 1 <input type="checkbox"/> Not Yet Assessable <input type="checkbox"/>

<b>Systems-Based Practice 1: HIT Knowledge of Current and New Testing, Implementation, Monitoring</b> Maintain awareness of health care and IT landscapes, including available products, innovation strategies, emerging technologies, and legal and regulatory requirements to design technical solutions to enterprise challenges				
Level 1	Level 2	Level 3	Level 4	Level 5
Describes the significance of legal and regulatory issues related to technical solutions to enterprise challenges  Discusses the role of vendor HIT products, emerging technologies, and innovation	Identifies key factors associated with legal and regulatory issues related to technical solutions to enterprise challenges  Identifies opportunities for the use of vendor HIT products, emerging technologies, and innovation	Participates in identifying legal and regulatory issues related to technical solutions to enterprise challenges  Analyzes HIT products, emerging technologies, and innovation for one or more specific opportunities	Addresses legal and regulatory issues related to technical solutions to enterprise challenges and assures compliance with regulations  Participates meaningfully in selection and implementation of HIT products, emerging technologies, and innovation	Leads processes addressing legal and regulatory issues related to technical solutions to enterprise challenges  Leads projects related to the implementation of HIT products, emerging technologies, and innovation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">                     Not Yet Completed Level 1 <input type="checkbox"/> </div>				

<b>Systems-Based Practice 2: Standards and Interoperability</b> <ul style="list-style-type: none"> <li>Apply methods and standards for data sharing across systems to support data sharing through health information exchanges, public health reporting, or other mechanisms</li> <li>Reconcile requirements for clinical integration of data with technical constraints to maintain connectivity, interfacing, and validity of content between systems and clinical areas</li> <li>Advance/foster interoperability between disparate health information systems</li> </ul>				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Describes methods and standards for data sharing across systems to support data sharing through health information exchanges, public health reporting, or other mechanisms</p> <p>Discusses issues related to ensuring connectivity, interfacing, and validity of content between systems and clinical areas</p> <p>Discusses sociocultural and other issues regarding fostering interoperability between disparate health information systems</p>	<p>Analyzes key factors regarding methods and standards for data sharing across systems to support data sharing through health information exchanges, public health reporting, or other mechanisms</p> <p>Identifies requirements and/or constraints related to ensuring connectivity, interfacing, and validity of content between systems and clinical areas</p> <p>Analyzes key factors in fostering interoperability between disparate health information systems</p>	<p>Identifies opportunities for data sharing across systems to support data sharing through health information exchanges, public health reporting, or other mechanisms</p> <p>Participates in efforts to ensure connectivity, interfacing, and validity of content between systems and clinical areas</p> <p>Identifies opportunities to foster interoperability between disparate health information systems</p>	<p>Participates in efforts to design and implement methods and standards for data sharing across systems to support data sharing through health information exchanges, public health reporting, or other mechanisms</p> <p>Develops solutions to ensure connectivity, interfacing, and validity of content between systems and clinical areas</p> <p>Participates meaningfully in efforts to foster interoperability between disparate health information systems</p>	<p>Leads efforts to design and implement methods and standards for data sharing across systems to support data sharing through health information exchanges, public health reporting, or other mechanisms</p> <p>Implements solutions to ensure connectivity, interfacing, and validity of content between systems and clinical areas</p> <p>Leads efforts to foster interoperability between disparate health information systems</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <p style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></p>				

Systems-Based Practice 3: Data Integrity/Security				
<ul style="list-style-type: none"> <li>Develop, implement, and/or leverage data lifecycle processes for defining sources, and acquiring, storing, cleaning, and ensuring integrity of data to safeguard the availability of relevant and valid data to meet clinical, quality, research, business, and strategic objectives</li> <li>Participate in ongoing security threat assessments, development of clinician-facing and enterprise security policy, and reinforce security training and policies with clinical staff members</li> </ul>				
Level 1	Level 2	Level 3	Level 4	Level 5
<p>Discusses data issues and processes to safeguard the availability of relevant and valid data to meet clinical, quality, research, business, and strategic objectives</p> <p>Describes security threat assessments, development of security policies, and training</p>	<p>Analyzes key factors in existing efforts to safeguard the availability of relevant and valid data to meet clinical, quality, research, business, and strategic objectives</p> <p>Recognizes key factors and benefits related to security threat assessments, development of security policies, and training</p>	<p>Identifies opportunities for implementing new processes to safeguard the availability of relevant and valid data to meet clinical, quality, research, business, and strategic objectives</p> <p>Identifies areas of focus for security threat assessments, development of security policies, and training</p>	<p>Meaningfully participates in the development of new processes to safeguard the availability of relevant and valid data to meet clinical, quality, research, business, and strategic objectives</p> <p>Meaningfully engages in efforts to conduct security threat assessments, development of security policies, and training</p>	<p>Leads efforts to implement processes to safeguard the availability of relevant and valid data to meet clinical, quality, research, business, and strategic objectives</p> <p>Educates others regarding security threat assessments, development of security policies, and training</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>Comments:</b></p> <p style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></p>				

<b>Practice-Based Learning and Improvement 1: Optimization, Downtime, Functional Requirements</b> Analyze and identify necessary system and process changes to optimize clinical and related workflows				
Level 1	Level 2	Level 3	Level 4	Level 5
Discusses challenges associated with clinical information system upgrades and downtime	Provides direct user support during EHR upgrades, routine system maintenance cycles, and downtime	Analyzes workflows related to clinician use of the EHR and suggests techniques for optimization of both workflows and EHR use	Develops and deploys specific system and process changes during EHR upgrades and for optimization-related clinical informatics projects	Develops and executes EHR upgrade, optimization, and downtime procedures
Articulates functional requirements related to EHR optimization and system downtime	Supports clinicians in EHR optimization and system downtime	Analyzes downtime events and identifies areas for improvement	Develops solution for downtime problems and challenges	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				
Not Yet Completed Level 1 <input type="checkbox"/>				

<b>Practice-Based Learning and Improvement 2: Clinical Decision Support (CDS)</b> Develop, implement, evaluate, monitor, and/or maintain clinical decision support				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies the elements and categories and discusses the challenges of CDS, such as alert fatigue	Describes the basics of the science of decision-making, including heuristics and tools to analyze decisions	Participates in the design and evaluation of an evidence-based CDS based on input from stakeholders	Assists in implementation of an evidence-based CDS, and monitors its effectiveness using key outcomes/measures/metrics	Leads the design and implementation of an evidence-based CDS and develops a plan to identify and monitor key outcomes/measures/metrics
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				
Not Yet Completed Level 1 <input type="checkbox"/>				

Practice-Based Learning and Improvement 3: Analytics				
<ul style="list-style-type: none"> <li>Employ data mining and analytic techniques (including but not limited to data visualization, artificial intelligence, natural language processing, machine learning) to optimize clinical and business decision-making</li> <li>Identify, execute, interpret, and disseminate measures and/or predictive analytics to provide actionable feedback to improve individual and organizational performance</li> </ul>				
Level 1	Level 2	Level 3	Level 4	Level 5
Discusses various data mining and analytics techniques	Identifies appropriate data analytics tools and visualizations for a specific use case	Constructs queries using database query languages and ancillary software and performs preliminary analysis on datasets	Analyzes datasets using programming tools and present summary findings to stakeholders using data visualization tools	Leverages analytics to improve patient care
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				



Practice-Based Learning and Improvement 4: Human-Computer Interaction (HCI) and User Interfaces (UI) Assess/evaluate and/or improve usability of user-facing technology for clinicians				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies models, theories, and practices of HCI, including interface design standards and principles	Discusses the role of EHR UI in causing clinical errors	Participates in analysis of feedback of EHR users of UI as new functionalities or modules are implemented	Evaluates elements of usability of a new EHR module or functionality	Designs or modifies a prototype for UI that can be used by clinical end users
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				

Practice-Based Learning and Improvement 5: Reflective Practice and Commitment to Personal Growth				
Level 1	Level 2	Level 3	Level 4	Level 5
Accepts responsibility for personal and professional development by establishing goals	Demonstrates openness to performance data (feedback and other input) to inform goals	Seeks performance data episodically, with adaptability and humility	Intentionally seeks performance data consistently, with adaptability and humility	Role models consistently seeking performance data with adaptability and humility
Identifies the factors that contribute to gap(s) between expectations and actual performance	Analyzes and reflects on the factors that contribute to gap(s) between expectations and actual performance	Analyzes, reflects on, and institutes behavioral change(s) to narrow the gap(s) between expectations and actual performance	Challenges assumptions and considers alternatives in narrowing the gap(s) between expectations and actual performance	Coaches others on reflective practice
Actively seeks opportunities to improve	Designs and implements a learning plan, with prompting	Independently creates and implements a learning plan	Uses performance data to measure the effectiveness of the learning plan and, when necessary, improves it	Facilitates the design and implementation of learning plans for others
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				

Professionalism 1: Governance				
<ul style="list-style-type: none"> <li>Collaborate in the establishment and maintenance of data governance structures, policies, and processes that encompass data quality, integrity, security, access, data domain management, definition of clinical and business cohorts, oversight and application of data standards, data provenance/lineage, metadata, and data dictionaries/definitions</li> <li>Establish and/or participate in HIT governance to support strategic and financial planning, including formulation, implementation, and evaluation</li> <li>Identify informatics trends, best practices, and new technologies and/or participate in governance processes to position the organization for future opportunities</li> <li>Participate in the development of organizational health informatics goals, strategies, and tactics in alignment with the organizational mission and vision (using data, finance, and informatics best practices).</li> </ul>				
Level 1	Level 2	Level 3	Level 4	Level 5
Attends and provides summaries of organizational informatics and/or management governance meetings	Adds meaningful contributions to ideas generated during (or in relation to) governance meetings	Contributes new ideas and tools to governance and leads subtasks/projects for the governance committee	Leads work that meaningfully contributes to new policies and strategic plans	Co-leads organizational HIT governance activities
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				

<b>Professionalism 2: Mentorship</b> Engage, educate, supervise, and/or mentor clinicians and other health care team members in their use of health information tools, systems, and processes				
Level 1	Level 2	Level 3	Level 4	Level 5
Explains the functionality of health IT systems  Seeks out and engages with mentors	Provides direct support for health IT systems  Offers support and advice to team members	Participates in the development of learning materials for HIT  Serves as a mentor to a team member or junior colleague	Actively engages in individual and HIT systems training  Advises mentees and supports them in development and evaluation of projects	Develops and executes user education workshops and sessions  Manages large teams of mentees at various stages of development and leverages more senior mentees to mentor junior ones
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">                         Not Yet Completed Level 1 <input type="checkbox"/> </div>				

Professionalism 3: Professional Behavior and Ethical Principles				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies and describes potential triggers for professionalism lapses, including cultural insensitivity	Demonstrates insight into professional behavior and cultural sensitivity in routine situations	Demonstrates professional behavior and cultural sensitivity in complex or stressful situations	Recognizes situations that may trigger professionalism lapses and intervenes to prevent lapses in oneself and others	Coaches others when their behavior fails to meet professional expectations
Describes when and how to appropriately report professionalism lapses, including strategies for addressing common barriers	Takes responsibility for one's own professionalism lapses	Recognizes the need to seek help in managing and resolving complex ethical situations	Recognizes and utilizes appropriate resources for managing and resolving ethical dilemmas as needed (e.g., ethics consultations, literature review, risk management/legal consultation)	Identifies and seeks to address system-level factors that induce or exacerbate ethical problems or impede their resolution
Demonstrates knowledge of the ethical principles underlying the practice of clinical informatics	Analyzes straightforward situations using ethical principles	Analyzes complex situations using ethical principles		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				
Not Yet Completed Level 1 <input type="checkbox"/>				

Professionalism 4: Accountability/Conscientiousness				
Level 1	Level 2	Level 3	Level 4	Level 5
Takes responsibility for failure to complete tasks and responsibilities, identifies potential contributing factors, and describes strategies for ensuring timely task completion in the future	Performs tasks and responsibilities in a timely manner with appropriate attention to detail in routine situations	Performs tasks and responsibilities in a timely manner with appropriate attention to detail in complex or stressful situations	Recognizes situations that may impact others' ability to complete tasks and responsibilities in a timely manner	Takes ownership of system outcomes
Responds promptly to requests or reminders to complete tasks and responsibilities	Recognizes situations that may impact one's own ability to complete tasks and responsibilities in a timely manner	Proactively implements strategies to ensure that the needs of patients, teams, and systems are met	Monitors and improves strategies to ensure that the needs of patients, teams, and systems are met	Takes ownership of personal and team failures
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				

Professionalism 5: Self-Awareness and Help-Seeking				
Level 1	Level 2	Level 3	Level 4	Level 5
Recognizes the status of personal and professional well-being, with assistance	Independently recognizes the status of personal and professional well-being	With assistance, proposes a plan to optimize personal and professional well-being	Independently develops a plan to optimize personal and professional well-being	Coaches others when emotional responses or limitations in knowledge/skills do not meet professional expectations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				

This subcompetency is not intended to evaluate a fellow's well-being, but to ensure each fellow has the fundamental knowledge of factors that impact well-being, the mechanisms by which those factors impact well-being, and available resources and tools to improve well-being.

<b>Interpersonal and Communication Skills 1: Communicate Effectively with Multiple Constituencies</b> <ul style="list-style-type: none"> <li>• Demonstrate effective communication, negotiation, and conflict resolution skills</li> <li>• Promote culturally sensitive collaboration with health care team members, patients, members of the care community, external organizations, and vendors</li> </ul>				
Level 1	Level 2	Level 3	Level 4	Level 5
Effectively uses an online team communication tool	Creates a logical argument to propose a new project	Writes a project proposal that is approved by the administration	Implements the results of a project into practice	Demonstrates practice improvement through team science and team medicine
Demonstrates culturally sensitive communications	Sets up culturally sensitive communication by the team, project, and subproject	Generates a culturally sensitive project proposal that is approved by the administration	Implements a culturally sensitive project in clinical practice	Demonstrates the effectiveness of a culturally sensitive practice improvement project
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				



Interpersonal and Communication Skills 2: Building Consensus				
Build support and create alignment for informatics best practices to ensure all stakeholders are active, visible sponsors of informatics within their respective roles				
Level 1	Level 2	Level 3	Level 4	Level 5
Identifies stakeholders	Creates targeted messaging for each stakeholder	Delivers messages to stakeholders in multi-modal fashion and receives feedback	Coordinates discussions to resolve conflict across stakeholders	Builds consensus that is operationalized in the health system
Contributes to the creation of a project vision	Communicates vision of the project	Participates in governance	Inspires and motivates others to accept change	Evaluates change and pursues opportunities for improvement
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="text-align: right;">Not Yet Completed Level 1 <input type="checkbox"/></div>				

Interpersonal and Communication Skills 3: Interprofessional and Team Communication				
Level 1	Level 2	Level 3	Level 4	Level 5
Respectfully requests a consultation	Clearly and concisely requests a consultation and explains the rationale for the request	Checks one's own understanding of consultant recommendations	Coordinates recommendations from different members of the health care team to optimize patient care	Role models flexible communication strategies that value input from all health care team members, resolving conflict when needed
Respectfully receives a consultation request	Clearly and concisely responds to a consultation request	Checks understanding of recommendations when providing consultation		
Uses language that values all members of the health care team	Communicates information effectively with all health care team members	Uses active listening to adapt communication style to fit team needs	Communicates feedback and constructive criticism to superiors	Facilitates regular health care team-based feedback in complex situations
	Solicits feedback on performance as a member of the health care team	Communicates concerns and provides feedback to peers and learners		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				Not Yet Completed Level 1 <input type="checkbox"/>

Interpersonal and Communication Skills 4: Communication within Health Care Systems				
Level 1	Level 2	Level 3	Level 4	Level 5
Accurately records information in the patient record	Demonstrates organized diagnostic and therapeutic reasoning through notes in the patient record	Concisely reports diagnostic and therapeutic reasoning in the patient record	Communicates clearly, concisely, in a timely manner, and in an organized written form, including providing anticipatory guidance	Models feedback to improve others' written communication
Safeguards patient personal health information	Documents required data in formats specified by institutional policy	Appropriately selects direct (e.g., telephone, in-person) and indirect (e.g., progress notes, text messages) forms of communication based on context	Produces written or verbal communication (patient notes, email, etc.) that serves as an example for others to follow	Guides departmental or institutional communication around policies and procedures
Communicates through appropriate channels as required by institutional policy (e.g., patient safety reports, cell phone/pager usage)	Respectfully communicates concerns about the system	Uses appropriate channels to offer clear and constructive suggestions to improve the system	Initiates difficult conversations with appropriate stakeholders to improve the system	Facilitates dialogue regarding systems issues among larger community stakeholders (institution, health care system, field)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b>				
				Not Yet Completed Level 1 <input type="checkbox"/>