The collective observations from this first set of Clinical Learning Environment Review (CLER) site visits portray a community of teaching hospitals, medical centers, and ambulatory care sites that has great capacity to shape the quality of the emerging physician workforce and drive improvements in patient care.
Introduction

The ACGME’s mission is to improve health care and population health by assessing and advancing the quality of resident physicians’ education through accreditation. Over the past few years it has become readily apparent that the clinical setting in which residents and fellows learn directly impacts the quality of their training. In order to better understand these environments, the ACGME established the CLER Program in 2012. The CLER Program is designed to provide formative feedback that presents graduate medical education (GME) leaders and the executive leadership of the clinical learning environments (CLEs) with information on six areas of focus:

- Patient safety
- Health care quality (including health care disparities)
- Care transitions
- Supervision
- Fatigue management, mitigation, and duty hours
- Professionalism

The underlying premise of the CLER Program is that when GME leaders and executive leadership of CLEs are presented with detailed information on how they are addressing the six focus areas, they will use it to build upon their strengths and identify and act on opportunities for improvement—with the ultimate goal of improving patient care while optimizing the educational experience for resident and fellow physician learners. Based on a model that promotes continuous quality improvement, the CLER Program conducts site visits. The site visits are structured to gather evidence that will help answer five key questions (see sidebar). In the first set of visits, the CLER Program sought to establish a baseline, and—for that reason—focused principally on the first three questions, which address the infrastructure that CLEs have in place for each of the six focus areas and how residents, fellows, and faculty members engage in that infrastructure.

Background

In 2012, the ACGME created the CLER Program to explore important aspects of patient care and GME that are shared by the hospitals, medical centers, and ambulatory sites that comprise the CLEs. As a starting place, the ACGME Board of Directors identified six areas of focus that principally relate to patient safety, health care quality, and professionalism. Over time, these focus areas will likely change and grow to include other cross-cutting areas relevant to improving both patient care and GME.
In parallel with establishing the CLER site visit program, the ACGME also formed a CLER Evaluation Committee for the purpose of providing oversight and guidance. The CLER Evaluation Committee is made up of experts in a broad range of relevant subjects—including those with experience in GME, health care administration, patient safety, health care quality, and other aspects of the six focus areas—as well as resident members and representatives of the public.

This issue brief presents an Executive Summary of the National Report of Findings from the first set of CLER site visits to participating sites of 297 ACGME-accredited Sponsoring Institutions (SIs) of residency and fellowship programs. These visits, conducted from September 2012 through March 2015, focused primarily on teaching hospitals, medical centers, and ambulatory sites that host three or more core residency programs. The CLER Program elected to begin with these larger SIs to gather information on the sites that affect the majority of resident and fellow physicians in training.

Collectively, these 297 SIs oversee 8,878 ACGME-accredited residency and fellowship programs, with a range of from three to 148 programs per SI (median=17). The institutions surveyed account for 111,482 residents and fellows—90% of all those in ACGME-accredited programs—with a range from eight to 2,216 trainees per SI (median=241).

First time visits to the rest of the SI community—approximately 400 ACGME-accredited SIs that have two or fewer core residency programs each—began in September 2015 and will take approximately three years to complete. These visits encompass many rural and safety-net sites for clinical care. The results from visits to the smaller SIs will be published separately later.

For each of the 297 targeted institutions, the CLER teams visited one hospital or medical center that served as a CLE for that SI. They spent the majority of their time at inpatient settings, though where possible they also visited affiliated ambulatory care practices in close proximity. The hospitals and medical centers varied in size from 41 to 2,396 acute care beds (median=520). The majority (69.4%) were non-government, not-for-profit organizations; 21.5% were government, non-federal; 5.4% were investor-owned, for-profit; and 3.7% were government, federal (Figure 1).
Methods

In the group sessions conducted during these visits, the CLER teams collectively interviewed more than 1,000 members of executive leadership (including CEOs); 8,755 residents and fellows; 7,740 core faculty members; and 5,599 program directors of ACGME-accredited programs in the group sessions. Additionally, the CLER teams interviewed the CLEs’ leadership in patient safety and health care quality and thousands of residents and fellows, faculty members, nurses, pharmacists, social workers, and other health care professionals while on walking rounds of the clinical areas.

The National Report of Findings is based on a synthesis of all this information, with some data represented quantitatively while other data are described qualitatively. Data sources included answers to closed-ended questions collected through an audience response system, open-ended discussion questions, and interviews from the walking rounds. Mixed methods were used to improve the accuracy of the findings.

It is the collective results that informed the key findings in the National Report of Findings. CLER Program staff members aggregated and de-identified the results and presented them in summary form to the CLER Evaluation Committee. The members of the CLER Evaluation Committee reviewed the results and prioritized a set of key findings for each of the six focus areas. In doing so, the committee also identified a set of overarching themes that cut across all of the focus areas. The CLER Evaluation Committee achieved its decisions via consensus.

Overview of the National Report of Findings

The National Report presents findings from the larger SIs from several different perspectives, ranging from broad-based overarching themes to detailed descriptions for each of the six focus areas. The appendices provide additional information on methodology and data sources, and include a number of technical tables and figures.

The section on overarching themes presents broad, high-level observations that cut across the six CLER focus areas and comments on issues related to infrastructure, alignment of leadership, and strategic use of resources. The section on challenges and opportunities highlights three to five key findings within each focus area and provides commentary on their potential impact on GME and patient care. The section on detailed findings presents a more comprehensive look at the CLER data in both narrative and graphic form. This section includes the findings highlighted in the section on challenges and opportunities, as well as additional data for each focus area. The National Report of Findings concludes with a section on some of the noteworthy lessons learned and a preview of future directions for the ACGME and the CLER Program.
Overarching Themes

The initial visits of the CLER Program revealed a number of findings that appeared to be common across many of the CLEs and six focus areas.

• Clinical learning environments vary in their approach to and capacity for addressing patient safety and health care quality, and the degree to which they engage residents and fellows in these areas.

• Clinical learning environments vary in their approach to implementing GME. In many clinical learning environments, GME is largely developed and implemented independently of the organization’s other areas of strategic planning and focus.

• Clinical learning environments vary in the extent to which they invest in continually educating, training, and integrating faculty members and program directors in the areas of health care quality, patient safety, and other systems-based initiatives.

• Clinical learning environments vary in the degree to which they coordinate and implement educational resources across the health care professions.

KEY FINDINGS

See pages 8–9 for a series of key findings that the CLER Evaluation Committee has prioritized and selected to highlight in each of the six focus areas.

Lessons Learned

The CLER Program is designed to provide formative feedback to the hospitals, medical centers, and ambulatory care sites that serve as CLEs for ACGME-accredited residency and fellowship programs. While its main focus is to provide institutions with individual feedback, the aggregate data offer an important overview of the environments where residents and fellows train—and thus can inform the national conversation on optimal attributes for a CLE. The collective observations from this first set of CLER site visits portray a community of teaching hospitals, medical centers, and ambulatory care sites that has great capacity to shape the quality of the emerging physician workforce and drive improvements in patient care.

These 297 initial visits sought to establish baseline structural and operating characteristics of the clinical sites, as well as their training practices in the six focus areas for residents and fellows. In future cycles, the CLER Program will also seek to understand how the sites identify and prioritize areas for improvement and assess progress over time.

In time, the CLER Program will also seek to identify overarching themes associated with outcomes, in particular those related to resident and fellow engagement in the six focus areas. The first set of CLER visits showed that, while residents and fellows participate in educational activities related to the focus areas, the degree of experiential learning and active engagement varies both within and across sites. In the future, the CLER Program will seek to clarify whether this variation might affect important outcomes like patient care or resident and fellow training.

Future Directions

The CLER Program has begun a journey of exploring and improving the quality of patient care by seeking to better understand the CLEs in which residents and fellows develop the skills necessary for independent practice.

In shaping the CLER Program, the CLER Evaluation Committee will continue to review all aspects of the program, including voluntary responses to the site visit reports, as well as new data sources (e.g., post-visit experience, focus groups) developed and implemented to guide the program.

The CLER Evaluation Committee and the ACGME Board of Directors will also reevaluate the six areas of focus periodically, recognizing that these areas examine only a portion of the full context of a CLE. Suggestions for additional future areas of exploration include a more in-depth focus on resident, fellow, and faculty member well-being; additional exploration of interprofessional learning, teamwork, and collaborative practice; and evaluating how CLE/GME integration can further the Institute for Healthcare Improvement’s “triple aim” of achieving better care for patients, better health for communities, and lower costs.3

To help identify which practices are best for both GME and patient care, the ACGME recently launched a new four-year initiative called Pursuing Excellence in Clinical Learning Environments.4 This initiative sets up a collaborative, peer-to-peer shared learning system based on the goals outlined in the CLER Pathways to Excellence document.5

Recognizing that there are no simple answers to achieving excellence in the CLE, the ACGME has allocated resources to support explorations in the six areas and help facilitate sharing of successful practices throughout the CLE community. Over time, the organizations involved in Pursuing Excellence will contribute substantially to the growing body of resources for assisting CLEs on the path towards excellence. These collective efforts, both within the CLER Program and in alignment with other national organizations, seek to improve the quality of GME and patient care in all CLEs.
### PATIENT SAFETY

While many CLEs provided didactic training in patient safety, it was uncommon for CLEs to provide residents, fellows, and faculty members with opportunities for experiential learning.

In general, residents and fellows lacked clarity and awareness of the range of conditions that define patient safety events and were unaware of how CLEs use the reporting of adverse events and near misses/close calls to improve systems of care, both broadly and at the individual departmental level.

Though most residents and fellows were aware of their CLE’s process for reporting patient safety events, fewer of them appeared to have used it themselves to report events. When trainees did file a report, or have others file it for them, many received little or no feedback from the CLE.

Across CLEs, a limited number of residents, fellows, and faculty members participated in interprofessional, interdisciplinary, systems-based improvement efforts such as patient safety event reviews and analyses.

### HEALTH CARE QUALITY (including Health Care Disparities)

Across CLEs, most residents, fellows, and faculty members indicated they were aware of the organization’s priorities for health care quality improvement (QI); occasionally they could accurately identify them.

While most residents and fellows indicated they participate in QI projects, many interviewed appeared to have a limited knowledge of QI concepts and the specific methods and approaches to QI employed by the CLE.

Many residents and fellows seemed to view QI engagement as implementing solutions prescribed by the CLE or their department.

In most CLEs, residents and fellows appeared to have limited participation in interprofessional QI teams.

Few CLEs appeared to have a formal strategy for addressing health care disparities or a systematic approach to identifying variability in the care provided to or clinical outcomes of their known vulnerable patient populations.

In addressing health care disparities, many CLEs were focused on specific issues such as improving access to care for low-income patients, or meeting regulatory requirements such as interpreter services or community needs assessments. When the CLEs involved residents and fellows in health care disparities, it was most often at the level of providing direct service to select patients (such as those at low-income community-based clinics) or providing care in the context of short-term community outreach projects (e.g., health fairs).

Across most CLEs, education and training on health care disparities and cultural competency was largely generic, and often did not address the specific populations served by the institution. Generally, across CLEs, residents and fellows reported that learning about health care disparities and cultural competency was happening in an ad-hoc manner.
In general, CLEs were working to standardize and improve their processes for transitioning patients from the acute hospital setting to post-acute care (e.g., ambulatory, intermediate, or long-term care). Residents and fellows were occasionally engaged in the CLE’s efforts to design these strategies.

Occasionally CLEs indicated they were working towards a standardized organization-wide approach to managing inter-departmental transfer of patients assigned to resident and fellow teams (e.g., ED to inpatient, OR to ICU, ICU to floor, or medicine to surgery).

Most CLEs did not appear to have a standardized approach to facilitating resident and fellow hand-offs at change of duty that included the essential elements of safe, reliable transitions of care.

Across CLEs, a limited number of programs appeared to use formal criteria to assess residents’ and fellows’ skills in change-of-duty hand-offs. It was uncommon for programs to consistently engage faculty members in observing resident and fellow hand-offs.

Across most CLEs, residents, fellows, and faculty members reported an overall culture of close supervision within the GME community. CLEs also faced challenges of under- and over-supervision. Many faculty members and program directors perceived that external factors were contributing to a culture of over-supervision that impeded resident and fellow readiness for clinical practice after training.

Across most CLEs, there were residents and fellows who reported that they have personally experienced—or have witnessed peers in—clinical situations in which they felt there was inadequate supervision.

Few CLEs provided nursing and other clinical staff members with systematic resources that allowed them to check an individual resident’s required level of supervision for performing a patient procedure.

Some program directors reported having managed issues related to resident supervision within the past year, some of which were related to patient safety events. In general, the CLEs’ patient safety and quality leaders indicated that they did not actively monitor the supervision of residents and fellows except retrospectively, after a patient safety event had occurred.
FATIGUE MANAGEMENT, MITIGATION, AND DUTY HOURS

In general, CLEs had developed and implemented some form of fatigue management for residents and fellows. Strategies included those required by accreditation standards (e.g., adherence to duty hour restrictions, availability of call rooms, and education on fatigue management), as well as other strategies (such as offering taxi rides when the resident was too tired to drive home).

In many CLEs, residents, fellows, faculty members, and nurses reported observing resident fatigue that was related to factors other than the number of hours worked (e.g., periods of high patient volume or high-acuity patient care).

In many CLEs, faculty members reported a significant increase in their own fatigue.

Many GME programs enforced duty hour limits so strictly that they, in effect, discouraged using the exceptions permitted by the ACGME Common Program Requirements due to concerns this would trigger added scrutiny and/or citations.

Many faculty members and program directors perceived that there could be increased risk to patients due to frequent hand-offs prompted by institutional efforts to comply with duty hour requirements.

PROFESSIONALISM

Across nearly all CLEs, residents, fellows, and faculty members reported that they had received education about professionalism. For residents and fellows, this education most frequently occurred at orientation, and through subsequent annual online modules.

Across some CLEs, residents, fellows, and clinical staff described witnessing or experiencing incidents of disruptive or disrespectful behavior on the part of attending physicians, residents, nurses, or other clinical staff. These ranged from descriptions of isolated incidents to allegations of disruptive behavior that was chronic, persistent, and pervasive throughout the organization.

Some residents and fellows reported they had to compromise their integrity to satisfy an authority figure. In many CLEs, leadership was unaware of this perception.

In most CLEs, residents, fellows, faculty members, and program directors appeared to lack a shared understanding of the process residents and fellows would follow to resolve perceived mistreatment if seeking assistance outside of the mechanisms offered by GME.

Acknowledgments

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We thank them for their dedication and commitment to improving graduate medical education and patient care.
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