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Special points of interest:

- **Bipartisan health reform**
- **Reducing ambulatory malpractice and safety risk**
- **Supporting patient and family empowerment and engagement**
- **Improving patient handoffs**
- **Global Fellows Corner with Emily Gill, MBChB, BMedSci**
- **Recent publications from Center researchers**

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Lah S, Wilson EL, Rozenblum R, Hirshberg EL, Hopkins RO, Orme J, et al. [Patient and Family Experience: A Comparison of Intensive Care and Overall Hospitalization](#). Am J Crit Care. 2017 May;26(3):194-202.

Center Updates: a seasonal review

Pilot Testing Fall TIPS (Tailoring Interventions for Patient Safety): a Patient-Centered Fall Prevention Toolkit

Summary by Megan Duckworth, Research Assistant

Falls are a major public health problem. They are a leading cause of death and disability, and hospitalization increases the risk for falls. Falls are employed as national metrics of nursing care quality, and injuries related to falls are no longer reimbursable under Medicare. Patricia Dykes, RN, PhD—Program Director for Nursing Research in the Center—and her team have conducted over a decade of research examining why hospitalized patients fall and how to prevent falls. In a study funded by the Robert Wood Johnson Foundation, Dykes and her team developed, refined and tested an electronic fall prevention toolkit designed both to provide clinical decision support linking each patient’s fall risk factors with tailored interventions and to communicate the fall prevention plan to all members of the care team. The results of the randomized controlled trial, published in the Journal of the American Medical Association in 2010, showed a 25% reduction in falls on intervention units.

This toolkit leveraged health information technology to provide clinical decision support. Not every hospital system has capability to integrate an electronic toolkit into workflow, however, so it was necessary to develop a version of the toolkit that could be disseminated outside of the electronic health record, while preserving the clinical decision support provided. Dykes and her team developed the laminated paper Fall T.I.P.S. (Tailoring Inter-

ventions for Patient Safety) Toolkit to overcome this barrier. This tool uses color to provide the linkage between the patient’s risk factors and the associated evidence-based interventions. The laminated Fall TIPS tool facilitates application of the three-step fall prevention process, which consists of: 1) conducting a fall risk assessment, 2) creating a tailored fall prevention plan based on the patient’s individual risk factors and 3) consistently implementing the plan. The tool was developed to be easily understood by team members and patients with diverse health care literacy levels, and includes patient-friendly icons to communicate the personalized fall prevention plan.

The laminated paper Fall TIPS tool was pilot-tested for six months at Brigham and Women’s Hospital and at Montefiore Medical Center to establish efficacy and a foundation for adoption, implementation and spread. The results of this pilot, “Pilot Testing Fall TIPS (Tailoring Interventions for Patient Safety): a Patient-Centered Fall Prevention Toolkit,” were published in the Joint Commission Journal on Quality and Patient Safety. Implementation of the laminated Fall TIPS tool was guided by the Institute for Healthcare Improvement’s Framework for Spread, which identifies strategies to “set up” an institution for change and tactics for sustaining that change. The pilot’s results demonstrate that

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Patient And Family Experience: A Comparison of Intensive Care and Overall Hospitalization

Summary by Sarah Rose Slate, Research Assistant

As healthcare systems strive to improve quality of care, increasing focus has been placed on patient and family experiences. Researchers have developed tools to survey patients and families on their perceptions of care quality, of which the most widely used is the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) tool. HCAHPS is used frequently to assess patient and family perspectives on care, but focuses more broadly on the entire hospitalization. Less is known about patient

and family experiences in specific care settings, especially Intensive Care Units, which may present unique challenges that are not adequately captured using standard tools. To address this, the Patient Perception of Quality (PPQ) survey was designed to exclusively assess the critical care experience, but it is unknown whether the PPQ is a necessary addition to the HCAHPS. It is possible that an ICU stay would dominate people’s perceptions of a hospital

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A Way Forward for Bipartisan Health Reform? Democrat and Republican State Legislator Priorities for the Goals of Health Policy Summary by Theresa Fuller, Research Assistant

The United States healthcare system is broken, and efforts to reform it have lacked durability, largely due to bipartisan disagreement about goals and priorities. In “A Way Forward for Bipartisan Health Reform? Democrat and Republican State Legislator Priorities for the Goals of Health Policy,” author Christina Pagel, PhD et al. attempt to carve a way toward lasting reform by determining where there may be areas of bipartisan agreement.

To identify specific goals and priorities shared by both parties, the authors worked with health policy experts, equally Republican and Democrat, to identify health policy goals. Thirteen policy goals were identified, including costs, health, access, and quality. A survey was developed based on these items, and respondents were asked to rank the goals from most to least important.

The survey was distributed to 2,973 state legislators, who were

targeted due to their expanded role under the Trump administration, and because state legislators can be considered political proxies to their counterparts in Congress. There was a 13% response rate, evenly spread between political parties, geography, and legislative chamber. Responses were grouped into four domains: reducing costs, improving health, addressing care delivery, and smaller government.

The surveys revealed that Republicans and Democrats prioritize different areas for reform. Democrats highly rank improving health and equity, along with reducing costs. Republicans prioritize reducing costs and limiting government involvement. Notably, Republicans were split on the latter issue. While most ranked reducing government over improving health, a significant (though lesser) portion valued the opposite. The authors attribute this discrepancy to intra-party variability.

There were two fundamental areas

of disagreement between the two parties, per the authors. While Republicans ranked reducing government involvement as a top priority, Democrats listed it as lowest in importance. In contrast, Democrats emphasized fixing disparities based on race, ethnicity, and socioeconomic status; an area of reform which Republicans ranked least essential of all.

The authors suggest that since single-party reforms to date have led to only moderate success at best, the country should seek less ambitious reform, and begin with specific areas of bipartisan interest. Through the survey responses, the authors identified cost reduction as the most likely first target for reform. They accentuate the need to market these cost savings in ways that appeal to both Republicans and Democrats. Above all, they emphasize that these reforms should focus on areas in which agreement is realistic, avoid arguing other people’s or parties’ positions, and find compromise.

Pagel C, Bates DW, Goldmann D, Koller CF. [A Way Forward for Bipartisan Health Reform? Democrat and Republican State Legislator Priorities for the Goals of Health Policy](#). Am J Public Health. 2017 Oct;107(10):1601-1603. doi: 10.2105/AJPH.2017.304023.

The laminated version of the Fall TIPS Toolkit is also effective: adherence to the tool averaged above 80%, and both sites saw decreases in fall with injury rates.

Dykes PC, Duckworth M, Cunningham S, Dubois S, Driscoll M, Feliciano Z, et al. [Pilot Testing Fall TIPS \(Tailoring Interventions for Patient Safety\): a Patient-Centered Fall Prevention Toolkit](#). Jt Comm J Qual Patient Saf. 2017 Aug;43(8):403-413. doi: 10.1016/j.jcjq.2017.05.002.

Fall TIPS

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the laminated version of the Fall TIPS Toolkit is also effective: adherence to the tool averaged above 80%, and both sites saw decreases in fall with injury rates. Several barriers to implementation, which map to challenges preventing change in clinical practice that have been detailed in the literature, were identified. Targeted strategies to overcome these barriers were adopted. Lessons learned from this pilot will guide future implementations as the Fall TIPS Toolkit is disseminated.

The success of this pilot has generated interest from many other institutions that hope to apply the evidence to practice and implement Fall TIPS. To facilitate this process, with the goal of ensuring a successful, sustained and monitored roll-out of the Fall TIPS Toolkit as it spreads, Dykes and her team have started a Fall TIPS Collaborative. By joining the collaborative, members will be equipped with the tools, tactics and strategies required to support successful implementation of the Fall TIPS Toolkit. Collaborators will receive online “Train the Trainer” sessions, the training toolkit, targeted messaging for stakeholders, implementation guidelines, checklists and analyses tools, and access to a community of Fall TIPS users with their own strategies for overcoming barriers and sustaining change. Monitoring is a key component of sustaining any practice change, so members will also submit data on adherence to the protocol, levels of patient engagement, and fall and fall with injury rates. These data will help guide future implementation sites to achieve ideal outcomes.

The pilot test of the Fall TIPS Toolkit established the efficacy of the laminated tool and a model for spreading and sustaining the evidence. Based on their findings and the demonstrated interest in applying the evidence to practice, Dykes and her team are confident that they will continue to influence widespread positive change in fall prevention practices and outcomes.

Randomized Trial of Reducing Ambulatory Malpractice and Safety Risk: Results of the Massachusetts PROMISES Project

Summary by Brittany Couture, Research Assistant

Focus on patient safety and malpractice issues has been trending towards the ambulatory setting as of late due to the high rate of malpractice claims from ambulatory practices that are attributable to preventable harm. There are a variety of improvable safety risks present in ambulatory settings, including high volumes, and health information technology challenges. Unfortunately, ambulatory settings do not generally have the means to effectively implement systemic changes and support risk management and regulations. Likewise, previous interventions have mainly been focused on specific issues, such as medication errors, and not a wider range of high-risk domains. However, in the first primary care collaborative initiative focused on malpractice and patient safety risk, the PROMISES (Proactive Reduction of Outpatient Malpractice: Improving Safety, Efficiency, and Satisfaction) Project applied quality improvement methods to key ambulatory patient safety areas to address underlying problems that lead to suboptimal care. The project's overall objective was to evaluate the effects of these improvement measures on ambulatory malpractice risk and safety areas. In a recent publication from *Medical Care*, Gordon Schiff, MD et al report on the study's findings.

The study was set in 25 small-to-medium-sized adult primary care practices in Massachusetts, with 16 sites assigned to an intervention arm and 9 to a control group. A collaborative improvement initiative was implemented at the intervention sites, focused on "3+1" high-risk domains: management of lab test results, referrals, and medications; plus overarching culture and communication issues. The initiative provided intervention sites with 15 months of quality improvement training and

in-office coaching by improvement advisors, as well as shared learning methods to develop, test, and implement changes. Practice quality improvement teams were formed at each site to lead implementation of initiatives, and consisted of a frontline staff member as team lead, a medical director or practice manager as senior leader, an engaged physician as a clinical champion, and a 'day-to-day' champion who was generally nursing or administrative staff.

Retrospective chart reviews were performed at baseline and post-intervention, targeting a sample of patients identified as being at high risk for critical lab test follow-up due to abnormal test results. The goal of the chart reviews was to measure the intervention's impact, identify areas requiring improvement, and allow for standardized comparisons across study sites. Chart reviewers looked to determine if: (a) abnormal test results were present in the chart; (b) the abnormality was noted by a responsible provider; (c) there was documentation of an action or referral plan; (d) the patient was notified about the abnormality; and (e) the treatment or plan was completed for these abnormal results, or for other predefined high-risk results or findings. Severity of patient safety risk was calculated for identified charts and labeled as "serious potential risk" (events where potential or actual harm was found) and "potential risk" (no documented evidence that the clinician was aware of the result or finding).

Staff surveys were administered to all sites at both baseline and post-intervention to understand clinician perspectives on their practices, covering topics which included access to service and care, medication management, referral management, and test result manage-

ment. Patients were also surveyed at all sites to assess their primary care experiences, addressing topics such as access, communication, coordination, and patient-centered care, among others.

Results of the study revealed that the PROMISES intervention produced improvements to many key areas of primary care practice, especially related to chart-based evidence of reliable follow-up on high-risk abnormal test results. Significant improvements were shown from baseline to post-intervention through a reduction in occurrences of "open-loops"—situations in which documented follow-up and referrals after an abnormal test result were inadequate. Practices saw decreases in rates of potential safety risks from 155 to 54 instances and in serious patient safety risks from 28 to 13 instances per 1,000 patients with abnormal lab values, respectively. Some improvements were also found in practice patient safety culture measures. While not every measure in the study showed significant improvement, the results were overall promising, demonstrating that measurable improvement in these settings is possible. The intervention did not quite attain the widespread activity that was hoped. However, the 16 intervention sites still greatly benefited from the study, and implemented a total of 28 changes covering referral management, test results, medications, and communication.

The PROMISES Project shows that implementing a package of improvement-oriented interventions can effectively reduce ambulatory safety risks commonly seen in malpractice claims. However, further research is needed to determine whether investment in resources required to facilitate these improvements is justifiable and sustainable.

In the first primary care collaborative initiative focused on malpractice and patient safety risk, the PROMISES Project applied quality improvement methods to key ambulatory patient safety areas to address underlying problems that lead to suboptimal care.

Schiff GD, Reyes Nieva H, Griswold P, Leydon N, Ling J, Federico F, et al. [Randomized Trial of Reducing Ambulatory Malpractice and Safety Risk: Results of the Massachusetts PROMISES Project](#). *Med Care*. 2017 Aug;55(8):797-805.

Bates Receives John P. Glaser Health Informatics Innovator Award By Jenzel Espares, Research Assistant

David W. Bates, MD, MSc, FACMI has been awarded the 2017 John P. Glaser Health Informatics Innovator Award by the John P. Glaser Health Informatics Society. The society was formed at the University of Texas to create an environment that promotes collaborative and networking opportunities among health informatics professionals, and to recognize innovators who work tirelessly to pave the way for the field of health informatics. Along with this award, Dr. Bates will be formally inducted into the Glaser Society by its founder, John P. Glaser, PhD. The Center wishes to extend its heartfelt congratulations to Dr. Bates for this massive honor!

Regarding Dr. Bates, Glaser remarked the following: “For decades now, David Bates has been a major force in the advancement of health IT. He has earned the well-deserved respect of peers and colleagues—informaticians, scientists, physicians, nurses, and other health professionals, alike—for his visionary work to improve clinical decision making, patient safety, quality of care, cost-effectiveness, and outcomes assessment in medical practice.”

An Informatics Research Agenda to Support Patient and Family Empowerment and Engagement in care and recovery During and After Hospitalization Summary by Hilary Stenvig, Research Assistant

An increasing number of elderly individuals are choosing to “age in place,” or continue to live independently at home. This, compounded with shorter hospital stays that generate large amounts of patient health information, is leading to increasingly complex transitions from hospital to home. Patients and their care partners are often forced to make substantial decisions based on an excess of ill-presented data, which can cause difficulty viewing test results, accessing educational resources, and communicating concerns to their care team.

Acute care portals specifically designed for inpatients can help alleviate the information burden put on patients and their care partners during transitions by allowing for easier access to, and digestion of, personalized health data. These portals may play a helpful role in empowering and involving patients and their care partners in their care, thereby positively affecting patient safety and care quality.

In an effort to identify best practices surrounding acute care portals, a national Acute Care Patient Portal workshop was held with representatives from over 30 health systems and technology companies. Thematic analysis of recorded data from the workshop identified six sociotechnical and one evaluative research focus areas for acute care portal quality. Evaluations specifically focused on these seven areas could improve processes involving capture and consumption of information by patients, care partners, and providers.

Sociotechnical Research Needs

Standards: Patient data needs to efficiently move across platforms. Nomenclature and specifications must be standardized, and evaluations should address obstacles that inhibit accessibility, including low literacy and language barriers.

Privacy and Security: Acute care portals should be adequately safeguarded to protect patient data. Use of case-based scenarios could assist with determin-

ing when certain health information should be released to care partners.

User-centered Design: For ease of use, emphasis should be placed on meeting patient and care partner needs. High-priority information and communication methods should be easily accessible and tailored designs should be made available.

Implementation: When introducing patient portals into new settings, it is important to focus on increasing adoption and use, minimizing cost, training, technical support, and workflow integration.

Data and Content: Portals should not replicate electronic health records, but instead present only a subset of relevant information. Portals should also supply external teaching tools that adapt to patient needs during hospitalization and after discharge.

Clinical Decision Support: Portals should include clinical decision support tools not only for clinicians, but for patients and their care partners as well. Increased access to easily-digestible information and educational resources may decrease care transition-related errors and adverse events.

Evaluation Research Needs

Measurement: Assessing the value of acute care portals based on clinical outcomes is highly important, but it is also vital to maintain a continual evaluation system post-implementation. Data regarding usability, workflow, and necessary resources should be utilized to facilitate continual improvement.

Acute care patient portals are not yet widely used in acute and post-acute settings, but would certainly benefit from increased focus on the seven areas highlighted. Portals specifically designed for transitions from acute care to home and post-acute settings have potential to drastically improve care quality and patient safety by increasing patient empowerment and engagement, while reducing errors.

Acute care portals specifically designed for inpatients can help alleviate the information burden put on patients and their care partners during transitions by allowing for easier access to, and digestion of, personalized health data.

Collins S, Dykes P, Bates DW, Couture B, Rozenblum R, Prey J, et al. [An informatics research agenda to support patient and family empowerment and engagement in care and recovery during and after hospitalization.](#) J Am Med Inform Assoc. 2017 Jun 17.

Integrating Research, Quality Improvement, and Medical Education for Better Handoffs and Safer Care: Disseminating, Adapting, and Implementing the I-PASS Program
 Summary by Ryan Crook, Research Assistant

In 1999, the Institute of Medicine published *To Err is Human*, which reported that 98,000 Americans die each year due to medical errors. Today, this total is estimated at upwards of 180,000 in the United States alone. Miscommunication has been established as a major cause of medical errors in an array of settings, with patient handoffs being a main contributor. The “Illness severity, Patient summary, Action list, Situation awareness and contingency plans, and Synthesis by receiver” (I-PASS) Study Group was formed in 2009 with the aim of addressing the patient handoff issue and improving both intra- and inter-disciplinary communication in the healthcare industry.

The I-PASS Study Group has developed a “bundled intervention” that uses a multi-pronged approach to facilitate inclusion of key safety information in patient handoffs. The I-PASS system consists of workshops on the I-PASS handoff methods, printed I-PASS documentation, role-playing exercises, observational learning, faculty development, and process- and culture-changing campaigns; all designed to improve handoff procedures and reduce medical errors.

Since its formation, the I-PASS Study Group has conducted both single and multi-site studies across a variety of care settings. In an 11-center study focused on training pediatric residents in handoff communication, the researchers found that across 10,740 patient admissions, implementation of I-PASS patient handoff techniques saw a 23% reduction in medical errors and 30% fewer injuries due to medical errors. The same study also found a significant increase in the portions of verbal and written handoffs that contained key patient safety information, while having minimal impact on the time required to hand off a patient and provider workflow.

The success of this study has spurred the I-PASS Study Group to generalize their techniques for use in other clinical settings. A much larger multi-center study is currently being conducted at institutions across the country, and in a variety of medical and surgical specialties. Presently, 16 of the 35 participating centers have fully implemented the I-PASS system, with implementation at the other 19 sites currently in progress. Analysis of the 16 complete centers showed a high implementation success rate, with 70% of verbal and 81% of written handoffs containing all elements of the I-PASS system. The researchers have also sought to generalize the I-PASS system to the interdisciplinary setting by im-

plementing the Patient and Family Centered I-PASS system. This study, now in its final year, aims to determine whether implementing the I-PASS system in the patient-family setting is associated with a reduction in medical errors and preventable adverse events.

The success of the larger, multi-center studies has necessitated further dissemination of the I-PASS materials to encourage widespread adoption of the communication techniques developed by the Study Group. To facilitate adoption and spread, the researchers have begun to conduct presentations and workshops, and have made the necessary materials available on MedEdPORTAL®, as well as on a proprietary website built by the I-PASS team. These materials have since been downloaded by more than 3,500 individuals representing over 500 institutions, globally. However, despite the upsurge in downloads, relatively few individuals have managed to produce the sustainable institutional change required for long-term success with I-PASS. In response to this issue, the researchers formed the I-PASS Patient Safety Institute. The purpose of the Institute is to provide facilities with the proper business model and infrastructure—which consists of learning, assessment, and feedback platforms—to enable further growth and successful adoption of the I-PASS toolkit.

The I-PASS Study Group has made extensive contributions to the improvement of handoff and communication procedures. Additionally, it is one of only a handful of research teams to demonstrate success in reducing errors that occur during patient handoffs. The researchers have sought to overcome some of the challenges of implementing the I-PASS system through the use of organization-specific leadership structure diagrams, on-site champions, and senior leadership mentoring programs. The I-PASS Study Group will continue to disseminate the I-PASS system by leveraging its broad applicability and adapting it to different types of transitions, healthcare settings, and provider specialties.

Starmer AJ, Spector ND, West DC, Srivastava R, Sectish TC, Landrigan CP; I-PASS Study Group. [Integrating Research, Quality Improvement, and Medical Education for Better Handoffs and Safer Care: Disseminating, Adapting, and Implementing the I-PASS Program.](#) Jt Comm J Qual Patient Saf. 2017 Jul;43(7):319-329.

Implementation of I-PASS patient handoff techniques saw a 23% reduction in medical errors and 30% fewer injuries due to medical errors.



Global Fellows Corner, Emily Gill, MBChB, BMedSci
By Srijesa Khasnabish, Research Assistant

For each issue, the Center's Global Fellows are invited to share their experiences in the program, and how working with the Center has influenced their own patient safety initiatives.

Emily Gill, MBChB, BMedSci, is a 2017-18 Harkness Fellow in Health Care Policy and Practice who recently joined the Center for Patient Safety Research and Practice. She is working with Dr. David Bates and Dr. Patricia Dykes on a mixed-methods project that seeks to improve health care coordination during transitions via the use of health information technology (HIT). The title of her project is: "Rural United States Provider Information Exchange to Coordinate Care during Transitions: the role of HIT for complex chronic conditions." This project entails interviewing and surveying care providers regarding their experience with information exchange during transitions of care between facilities, with a focus on complex chronic care. According to Dr. Gill, "Analysis of this information will yield insights to inform recommendations of actionable steps to address challenges facing delivery of technologically-facilitated care coordination." In addition, she will conduct a literature review to supplement her findings.

Based on her experience as a Family Physician in rural and underserved communities in the Bay of Plenty, New Zealand, Dr. Gill has observed the need for improving care coordination in high-need and high-cost areas for humanitarian and financial reasons. The Bay of Plenty is characterized by its need for complex medical care requiring transitions between providers. It includes rural populations whose rates of age-adjusted mortality, disability, and chronic disease are higher than their urban counterparts. Focusing on care coordination is important to Dr. Gill, who has witnessed first-hand how easily information can go missing or become lost during care transitions. This leads to excessive tests that produce financial burdens to the patient and hospital, and can also cause unanticipated complications due to inaccurate medication and diagnostic lists.

While Dr. Gill grew up in California, she was born in New Zealand and traveled there as a child. She ultimately pursued her medical education at the University of Otago in New Zealand. Upon obtaining her MBChB, she spent an additional year completing a thesis-based research project on the management of diabetes in rest home facilities. She later went on to complete post-graduate diplomas at the University of Otago in Clinical Pediatrics and Women's Health. "I was fortunate to have a diverse set of clinical registrar years (residencies) ranging from rural primary care clinics to six months of anesthetics," she reflects. During her residency, she completed two seven-month-long missions in West Africa with Doctors Without Borders (Medicins Sans Frontiers), through which she worked on mitigating child malnutrition in Burkina Faso and the Ivory Coast. She also worked with various stakeholders in Burkina Faso to implement a pediatric HIV program, which she considers one of her most significant career activities, to date. Such experiences helped her develop a passion for tackling complex conditions.

Throughout her medical training and post-graduate work, Dr. Gill has maintained an interest in both research and health care policy through publications and participation in medical leadership organizations. Her research experience includes internships at the Australian National University's National Centre for Population Health and the National Institutes of Health in Bethesda, Maryland. She is also a Fellow of the Royal New Zealand College of General Practice.

Outside of practicing family medicine, Dr. Gill enjoys exploring new places, going on hikes, and learning about new ideas and cultures. Most her non-professional time is spent with her two young sons and husband, who moved with her to the United States upon her acceptance to the Harkness Fellowship Program. Dr. Gill and her family are excited to be in Boston, a vastly different backdrop to the one they call home. "In our small rural town of approximately 10,000 people, we have to drive for two hours to see a street light!" she exclaims. Her sons are eager to explore the parks, museums, and community activities Boston has to offer.

As a Harkness Fellow, Dr. Gill looks forward to gaining new research skills and expert knowledge in the domains of health informatics. She is keen to engage with exceptional scholars at the Center and to initiate the collaborations her work will spark. She appreciates the opportunity to have Dr. Bates and Dr. Dykes as mentors. She feels that Dr. Bates' perspective as a primary care physician involved in care coordination to improve patient safety will be valuable. Furthermore, Dr. Dykes completed a project that can be replicated in the rural context. In regards to her mentors, Gill believes, "In addition to their unquestioned expertise, during conversations with me prior to coming, Drs. Bates and Dykes were kind and inviting. I could not ask for a better environment to achieve my goals, under such mentorship, and I am honored to contribute to the work being

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Selected Publications by members of the Center

[Changes in Everyday and Digital Health Technology Use among Seniors in Declining Health.](#) Levine DM, Lipsitz SR, Linder JA. *J Gerontol A Biol Sci Med Sci.* 2017 Jun 12. doi: 10.1093/gerona/glx116. [Epub ahead of print]

[The Impact of Whole-Genome Sequencing on the Primary Care and Outcomes of Healthy Adult Patients: A Pilot Randomized Trial.](#) Vassy JL, Christensen KD, Schonman EF, Blout CL, Robinson JO, Krier JB, et al.; MedSeq Project. *Ann Intern Med.* 2017 Jun 27. doi: 10.7326/M17-0188. [Epub ahead of print]

[Exploring the potential for using drug indications to prevent look-alike and sound-alike drug errors.](#) Seoane-Vazquez E, Rodriguez-Monguio R, Alqahtani S, Schiff G. *Expert Opin Drug Saf.* 2017 Oct;16(10):1103-1109. doi: 10.1080/14740338.2017.1358361. Epub 2017 Jul 27.

[Outpatient CPOE orders discontinued due to 'erroneous entry': prospective survey of prescribers' explanations for errors.](#) Hickman TT, Quist AJL, Salazar A, Amato MG, Wright A, Volk LA, et al. *BMJ Qual Saf.* 2017 Jul 28. pii: bmjqs-2017-006597.

[The association of post-discharge adverse events with timely follow-up visits after hospital discharge.](#) Tsilimingras D, Ghosh S, Duke A, Zhang L, Carretta H, Schnipper J. *PLoS One.* 2017 Aug 10;12(8):e0182669. doi: 10.1371/journal.pone.0182669. eCollection 2017.

[Comment Topic Evolution on a Cancer Institution's Facebook Page.](#) Tang C, Zhou L, Plasek J, Rozenblum R, Bates D. *Appl Clin Inform.* 2017 Aug 23;8(3):854-865.

[Comparison of Overridden Medication-related Clinical Decision Support in the Intensive Care Unit between a Commercial System and a Legacy System.](#) Wong A, Wright A, Seger DL, Amato MG, Fiskio JM, Bates D. *Appl Clin Inform.* 2017 Aug 23;8(3):866-879.

[Prospective Evaluation of a Multifaceted Intervention to Improve Outcomes in Intensive Care: The Promoting Respect and Ongoing Safety Through Patient Engagement Communication and Technology Study.](#) Dykes PC, Rozenblum R, Dalal A, Massaro A, Chang F, Clements M, et al. *Crit Care Med.* 2017 Aug;45(8):e806-e813

[Implementation of acute care patient portals: recommendations on utility and use from six early adopters.](#) Grossman LV, Choi SW, Collins S, Dykes PC, O'Leary KJ, Rizer M, et al. *J Am Med Inform Assoc.* 2017 Sep 4. doi: 10.1093/jamia/ocx074. [Epub ahead of print]

[Strategies to Reduce Injuries and Develop Confidence in Elders \(STRIDE\): A Cluster-Randomized Pragmatic Trial of a Multifactorial Fall Injury Prevention Strategy: Design and Methods.](#) Bhasin S, Gill TM, Reuben DB, Latham NK, Gurwitz JH, Dykes P, et al. *J Gerontol A Biol Sci Med Sci.* 2017 Oct 14. doi: 10.1093/gerona/glx190. [Epub ahead of print]

[Clinical decision support alert malfunctions: analysis and empirically derived taxonomy.](#) Wright A, Ai A, Ash J, Wiesen JF, Hickman TT, Aaron S, et al. *J Am Med Inform Assoc.* 2017 Oct 16. doi: 10.1093/jamia/ocx106. [Epub ahead of print]

[Opportunities and Challenges for Improving the Patient Experience in the Acute and Postacute Care Setting Using Patient Portals: The Patient's Perspective.](#) Dalal AK, Bates DW, Collins S. *J Hosp Med.* 2017 Oct 18:E1-E5. doi: 10.12788/jhm.2860. [Epub ahead of print]

[Top ten challenges when interfacing a laboratory information system to an electronic health record: Experience at a large academic medical center.](#) Petrides AK, Tanasijevic MJ, Goonan EM, Landman AB, Kantartjjs M, Bates DW, et al. *Int J Med Inform.* 2017 Oct;106:9-16

[Implementation of a scalable, web-based, automated clinical decision support risk-prediction tool for chronic kidney disease using C-CDA and application programming interfaces.](#) Samal L, D'Amore JD, Bates DW, Wright A. *J Am Med Inform Assoc.* 2017 Nov 1;24(6):1111-1115. doi: 10.1093/jamia/ocx065.

New book coauthored by Dr. Bates:

[Key Advances in Clinical Informatics: Transforming Health Care through Health Information Technology.](#) Sheikh A, Bates DW, Wright A, Cresswell K. Academic Press. 2017 July 11.



Take a look at
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RESEARCH AND
INNOVATION TO
IMPROVE QUALITY

Global Fellows Corner

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done here.”

Dr. Gill is grateful to have received this fellowship because she understands the importance of health care policy in improving care delivery. It also provides opportunity to broaden her professional role to act as a clinician and health care policy researcher. She envisions that “By doing 50% clinical work and 50% research, I can contribute as much, if not more, to the advancement of care quality in rural communities.” Also, as an advocate of improved coordination of care through clinical governance activities—she works with a Regional Health Board in New Zealand—she foresees improving health outcomes within her institution, and beyond.

At the end of her fellowship, Dr. Gill hopes to contribute to improving health care coordination and policy in New Zealand using the knowledge, skills, and connections she makes at the Center. Despite the one-year time span of the Harkness Fellowship, she plans to maintain relationships with her colleagues here at the Center and to continue collaborating with Dr. Bates and Dr. Dykes.

The Center is excited to welcome Dr. Gill into its community of researchers, and looks forward to seeing how the results of her project inform future development of health care coordination.

Patient and Family Experience

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stay already, so they would answer the HCAHPS survey similarly to the PPQ based on their ICU encounter.

In a recent article published in American Journal of Critical Care, author Soowhan Lah, MD et al. explored this concern by comparing HCAHPS scores with PPQ scores for patients who had an ICU admission to see if the two measures were correlated. They looked at ICU admissions at Intermountain Medical Center in Murray, Utah where both HCAHPS and PPQ results were available for the same admissions between 2007 and 2012. The HCAHPS includes an overall assessment of the hospital, as well as specific domains including provider communication, pain management, and quality of environment. The PPQ addresses similar topics as the HCAHPS, including physician and nursing care and communication, but for ICU stays only.

A total of 1,754 matched PPQ and HCAHPS surveys were used in the analysis. Results of the primary analysis showed a low correlation (.32) between overall ratings of the entire hospitalization (HCAHPS) and just the ICU (PPQ). Secondary analyses showed that the correlation between HCAHPS and PPQ was slightly higher (.45) when patients completed the PPQ, rather than when the patient’s family member or friend completed it, but the correlation was still low. Additionally, individual survey items about physician and nurse care of the patient had an even lower correlation between the PPQ and the HCAHPS than the overall ratings of the ICU and hospital.

In hospital admissions that included an ICU stay, ratings of hospital experience (HCAHPS) were only somewhat correlated with ratings of ICU-specific experience (PPQ). Therefore, HCAHPS scores did not reflect the patient and family experience in a critical care setting, and seem to be measuring something different than the PPQ survey. Based on their findings, the authors concluded that there is marked value in assessing ICU-specific experiences. Rather than simply using the HCAHPS survey, other tools should be developed and tested that are specific to patients and families’ perceptions of critical care quality.



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