CROR Outcomes

Inaugural issue of *CROR Outcomes*

Welcome to the inaugural issue of the Center for Rehabilitation Outcomes Research (CROR) quarterly newsletter. This newsletter reflects the growth of our program over the past few years and allows us to share our progress and research findings with you. We hope you will find the newsletter beneficial and that it provides insight into rehabilitation outcomes, measurement, and policy issues.

Each issue of the newsletter will feature a front page story that highlights a contemporary health policy or disability topic which is the focus of one of our studies. This issue focuses on Medicare's Prospective Payment System for Inpatient Rehabilitation Facilities and the implications for access, service delivery and outcomes for persons with chronic illness and disabilities.

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Inside

Dr. Mallinson's Research Combines Clinic Experience With Contemporary Measurement Methods

Dr. Trudy Mallinson's successful career in occupational therapy and rehabilitation began almost by accident. As her high school education in New Zealand came to a close, Mallinson, who has been a clinical research scientist at the Rehabilitation Institute of Chicago since May 2002, realized she needed to take steps toward choosing a career. Her friends were pursuing careers in nursing or education, neither of which interested Mallinson.

Unsure of what direction to take, she enlisted the help of her high school guidance counselor who administered a career test designed to pinpoint her "calling." According to the less-than-accurate test, Mallinson was best suited to be a rabbi or a dental technician.

"I'm not Jewish …and I don't like going to the dentist," said Mallinson, laughing.

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IRF-PPS Changes Payment Rules: Providers Respond

In 1983 the federal government introduced Medicare's Inpatient Prospective Payment System (PPS), which changed hospitals' compensation from a fee-for-service system to one based upon pre-determined rates for each diagnosis related group (DRG). Patients were classified into a specific DRG based on factors such as diagnosis, age and gender. Medicare then paid this flat, preset rate to hospitals for all patients based on their DRG, regardless of the actual costs incurred or services provided.

> "Under the new system, Medicare said no, we looked at this data and we know how much it costs to care for someone who has had a stroke and we know how long they should stay in IRFs."
> *Dr. Elizabeth Durkin, Research Asst. Professor*

However, despite a desire to curb costs and increase efficiency in all areas of health care, in 1983 Medicare decided that available data was insufficient to develop a PPS for post-acute care. Thus, post-acute care settings such as inpatient rehabilitation facilities (IRFs) and IRF units within acute care hospitals, skilled nursing facilities, home health, and long term care hospitals, were exempt from the federal mandate.

As was intended by the legislation, hospitals began to discharge patients earlier to receive rehabilitation care in less expensive post-acute care settings.

As Dr. Elizabeth Durkin, a Northwestern University professor who

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The Center for Rehabilitation Outcomes Research (CROR) conducts studies measuring how medical rehabilitation and health policies impact people with disabilities. The Center also examines methods to increase effectiveness and efficiency of the rehabilitation process. CROR is a part of the Rehabilitation Institute of Chicago – ranked #1 Rehabilitation Hospital for 16 Consecutive years by U.S. News & World Report.

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Inpatient Rehabilitation Facilities In Review

In order to be classified as an inpatient rehabilitation facility (IRF) by the Centers for Medicare and Medicaid Services, 75 percent of the facility's patients must receive treatment for one of 13 qualifying conditions – among them stroke, spinal cord injury, neurological disorders such as multiple sclerosis, and amputation.

Recently, this "75 percent rule" has become a hotly debated topic and crackdowns on noncompliance have forced IRFs to change their patient case mix. CMS' attempt to make IRFs compliant has also shed light on the distinction between IRFs and skilled nursing facilities (SNFs), and forced questions about which patients do better in which post-acute care setting.

> "The 75 rule dates back to 1983, when Medicare implemented the Prospective Payment System (PPS) for acute care facilities. The agency exempted IRFs from the new system"

Background of 75 percent rule

The 75 rule dates back to 1983, when Medicare implemented the Prospective Payment System (PPS) for acute care facilities. The agency exempted IRFs from the new system – whereby hospitals were paid a preset amount for each patient based on initial diagnosis – and included a set of rules to distinguish IRFs from acute care hospitals. There was consensus that IRFs provide more intensive rehabilitation services than acute care settings or skilled nursing facilities.

After the federal mandate for an acute care hospital PPS, rehabilitation grew rapidly. Under a prospective payment system, hospitals bear all of the risk because they can estimate how much they will be paid as soon as a patient is admitted. If patients stay longer than expected, the hospital generally does not receive additional payment. Therefore, in order to manage risk under this type of payment system, hospitals have an incentive to discharge patients as soon as possible to home or, in some cases, to post-acute care settings where they can receive rehabilitation, said Dr. Anne Deutsch, a clinical research scientist with the Center for Rehabilitation Outcomes Research (CROR) at the

CROR Publication Highlights

Manuscripts

1. Heinemann AW, Fisher W, Gershon R. Improving Healthcare Quality with Outcomes Management. Journal of Prosthetics and Orthotics, 6, 46-50, 2006.

2. Heinemann AW, Gershon R, Fisher W. Development and application of the orthotics and prosthetics user survey: Applications and opportunities for healthcare quality improvement, Journal of Prosthetics and Orthotics, 6, 80-85, 2006.

3. Silverstein B, Findley PA, Bode RK. Usefulness of the nursing home quality measures and quality indicators for assessing skilled nursing facility rehabilitation outcomes. Archives of Physical Medicine & Rehabilitation 2006;87(8):1021-5.

4. Deutsch A, Granger CV, Heinemann AW, Fiedler RC, DeJong G, Kane, RL, Ottenbacher KJ, Naughton JP, Trevisan M, Post-stroke rehabilitation: Outcomes and reimbursement of inpatient rehabilitation facilities and subacute rehabilitation programs. Stroke, 37:1477-1482, 2006.

5. Mallinson T, Cella D, Cashy J, Holzner B. (2006). Giving meaning to measure: Linking self-reported fatigue and function to performance of everyday activities. Journal of Pain & Symptom Management, 31(3), 229-241.

Books

1. Hagglund K, Heinemann AW (Eds.). Handbook of applied disability and rehabilitation research. New York: Springer Publishing Company, 2006 (ISBN: 0826132553).

2. Mallinson T. Activities of Daily Living. In Albrecht, GL (Ed.). Encyclopedia of Disability. Thousand Oaks, CA: Sage Publications, 2006.

Presentations

1. Heinemann AW, Dobrez DG. Mood disorder costs during inpatient rehabilitation. Poster presented at the 113th annual convention of the American Psychological Association, New Orleans, August 11, 2006.

2. Heinemann AW, Mallinson T, Deutsch A. Medicare Inpatient Rehabilitation Facility Regulations: Quality Indicators, Access, Outcomes and Facility Responses. Course presentation at the American Congress of Rehabilitation Medicine and American Society of Neurorehabilitation Joint Conference: Translating Research into Practice, Boston, MA, September 30, 2006.

Rehabilitation Institute of Chicago (RIC). "If patients weren't ready to go home, they often got transferred to post acute care, which sparked huge growth in these programs."

As the number of IRFs grew, the rehabilitation needs of patients were also changing. For instance, as Deutsch explained, in the 1970s, rehabilitation hospitals primarily treated patients who had very serious medical rehabilitation needs such as stroke, spinal cord injury and traumatic brain injury. In the 1980s, IRFs began treating other kinds of patients, including those with orthopedic problems. This occurred partly because of PPS, but also because of the changes in joint replacement surgical technology and care, which meant that patients were ready to engage actively in rehabilitation care much sooner than before.

"The question that is being asked now is, do these patients actually belong in an IRF setting, or in a less expensive rehabilitation program such as a skilled nursing facility or home health care?" Deutsch said. "Should Medicare be paying more to keep patients in rehabilitation hospitals and are they benefiting in the long run?"

Evaluating IRF compliance

Medicare delegates responsibility for enforcing compliance to fiscal intermediaries (FIs). FIs are agencies that work on behalf of the Centers for Medicare and Medicaid (CMS) to ensure appropriate use of Medicare services. Over time, however, oversight became lenient and rehabilitation facilities began interpreting aspects of the 75% rule differently than CMS staff, Deutsch said.

Following Medicare's 2002 implementation of the IRF prospective payment system (IRF-PPS), the agency began to take a closer look at whether rehabilitation facilities were in compliance with the 75 percent rule. In addition, some of the fiscal intermediaries informed hospitals that they would no longer be recognized as inpatient rehabilitation

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3. Deutsch A. Rehabilitation Health Policy: Past, Present & Future. Keynote speaker at the 9th Annual Rehabilitation Symposium: Best Practices in Rehabilitation, Kaiser Foundation Rehabilitation Center/Kaiser Permanente, Oakland, CA; September 19th, 2006.

4. Heinemann AW. Substance use disorders in rehabilitation populations. Paper presented at the 113th annual convention of the American Psychological Association, New Orleans, August 12, 2006.

5. O'Dwyer L, Deutsch A, Ehrlich-Jones L, Stevens K. Searching the literature for evidence. Paper presented at Association of Rehabilitation Nurses 32nd Annual Educational Conference, Chicago, October 5, 2006.

6. Mallinson T, Manheim L, Almagor O. Openings and Closings of Freestanding IRFs 1996-2004: Trends and the Effect of IRF PPS. Presenttion at AcademyHealth's Annual Research Meeting, Seattle, WA, June 25, 2006.

7. Deutsch A, Bode R, Heinemann AW. Equating Two Versions of the FIM™ Instrument. Presentation at the Midwest Objective Measurement Seminar, University of Chicago at Illinois, Chicago, IL, April 28, 2006.

8. Bode RK, Yost KJ, Webster K, Baker DW, Weiss BD, Hahn EA. Using state-of-the-science methods and technology to develop health literacy item banks in English and Spanish. Poster presented at the 5th International Test Commission conference, Brussels, Belgium, July 8, 2006.

9. Mallinson T, Dworak J. Timing, Intensity, and Duration of Occupational Therapy After Lower Extremity Joint Replacement. Presentation at the American Occupational Therapy Association, Charlotte, NC, April 2006.

IRF Organizational Theory: Collaborating Researcher Explores New Territory

While Dr. Elizabeth Durkin did not begin her career in the study of rehabilitation and post-acute care, her prior expertise in social science research proved quite beneficial when she began working with the Center for Rehabilitation Outcomes Research (CROR) at the Rehabilitation Institute of Chicago.

A Chicago native, Durkin completed her Ph.D. in social service administration at the University of Chicago in 2000. During the following fall, she began a postdoctoral fellowship in health services research at Northwestern University – a two-year research program that focuses chiefly on efforts to improve health services and inform policy decisions.

Following the completion of the fellowship, Durkin accepted a position as a research assistant professor at Northwestern's Mental Health Services and Policy Program. The program, which is based in the university's Department of Psychiatry and Behavioral Research, promotes research in all areas of mental health services including access and outcomes.

"My primary research was in organizational sociology," Durkin said. "I was looking at how health care organizations varied, and trying to understand how organizational factors impacted the way that mental health services are implemented and delivered."

In late 2002, the staff at the CROR invited Durkin to a meeting in order to discuss her potential contribution to a grant proposal they were in the process of formulating. The grant was for an impact study examining how inpatient rehabilitation facilities responded to new legislation mandating their inclusion in the prospective payment system.

"Members of the project had already been thinking about how organizational sociology fit into the project," she explained. Durkin joined the other CROR members, and they received a grant from the National Institute for Disability and Rehabilitation Research (NIDRR) in spring 2003.

The first round of data from the impact study has just recently been released, and was also presented at a health care conference in early June. The second round of interviews still needs to be reviewed, said Durkin. That will afford the CROR the opportunity to examine how the organizations have responded to further changes.

"Eventually, I would like to use this as a stepping stone for a larger grant application for a bigger sample of facilities," Durkin said. "The reason for that is that there is really very little information out there. There are no large surveys and no detailed data specific to rehabilitation facilities. It's uncharted territory."

Durkin also continues to work in the Mental Health Services and Policy Program conducting research on homeless people with mental health problems.

Earlier this fall, she celebrated the birth of her fourth child.

Dr. Trudy Mallinson (Continued From Page One)

"The guidance counselor did give me information on occupational therapy, though, and I thought, 'That might work.'"

> "…Certain parts of their mind or body didn't work the same way anymore and they had to figure out how to construct a whole new life with this new body or mind."
>
> *Dr. Trudy Mallinson, Associate Director*

Her newly-chosen career proved to be a very good fit. Mallinson found that she genuinely enjoyed working with patients learning to live with chronic disability who, as she explained, "were faced with new challenges because certain parts of their mind or body didn't work the same way anymore and they had to figure out how to construct a whole new life with this new body or mind."

After earning both a diploma in occupational therapy and a bachelor's degree, and working for several years in OT in New Zealand, Mallinson became dissatisfied with the limitations she viewed as inherent within her field. Her chief complaint was the limited availability of evidence-based strategies needed to effectively aid patients in the relearning process.

A family member suggested she might pursue a master's degree as a way to quell her frustration and become better acquainted with new research in rehabilitation. Although there were strong programs in Canada and Sweden, Mallinson was attracted to the occupational therapy program at the University of Illinois at Chicago because of Dr. Gary Kielhofner and the work he was doing on the Model of Human Occupation.

Mallinson completed her master's degree in OT at UIC and followed with a Ph.D. from the School of Public Health, also at UIC. When the time came to search for a postdoctoral fellowship, Mallinson was most interested in focusing on the policy aspect of rehabilitation services, and in studying the way Rasch analysis, a statistical method of analyzing survey data, could be applied to better measuring rehabilitation outcomes. Under the Rasch model, named for its Danish inventor, raw scores on an assessment are converted to equal interval measures in order to determine people's physical abilities – a more accurate approach than merely adding up their scores.

Mallinson had taken several classes at the University of Chicago with key proponents of this approach. These individuals had taken the Rasch model and designed computer programs to make it usable for researchers. It was through these meetings with other Rasch model users in Chicago that Mallinson met Dr. Allen Heinemann, the director of RIC Center for Rehabilitation Outcomes Research (CROR). After completing her postdoctoral fellowship at Northwestern University in 2002, Mallinson took a position at the RIC.

The bulk of her research has centered on designing instruments or improving existing rehabilitation instruments using Rasch analysis. In other words, as Mallinson explained, developing instruments that are better able to detect differences in people's functional ability and quality of life.

In 2004, CROR received a large, multi-study Rehabilitation Research and Training Grant from the National Institute on Disability and Rehabilitation Research (NIDRR). As Principal Investigator on one of the studies, Mallinson is utilizing the Rasch model to equate patients' functional status in home health settings, rehabilitation facilities, and skilled nursing facilities – all of which measure functional status with different instruments. "That makes it really hard to compare outcomes of rehabilitation in different settings, to understand if some settings work better for some patients than for others," Mallinson said.

"That's what I am doing right now," Mallinson said. "Essentially because of how the Rasch model works, you can estimate differences in people's functional status even though they were measured on different scales. We're using our data to equate rehabilitation patients' functional outcomes so we can look at cost effectiveness across post-acute care settings. We haven't really been able to do that before."

In addition to her latest research, Mallinson also works with Dr. Rowland Chang, director of the Arthritis Center at the Rehabilitation Institute of Chicago on an NIH-funded randomized controlled trial to compare ways of promoting physical activity for people with arthritis. On this project, Mallinson has had key roles in developing an assessment to identify factors that both help and hinder physical activity in people with arthritis, and in developing an intervention approach to keep patients more active. It's her way, as she said, of keeping her hand in the clinical side.

IRF-PPS (Continued From Page One)

collaborates with the Center for Rehabilitation Outcomes Research (CROR) at the Rehabilitation Institute of Chicago (RIC), explained, this created a large demand for post-acute care. In January 1998, Congress responded to the enormous growth in post-acute care by passing the Balanced Budget Act, which phased in PPS for post-acute care. Inpatient rehabilitation came under prospective payment in 2002, implementing the Inpatient Rehabilitation Facility Prospective Payment System (IRF-PPS).

Nature of the IRF-PPS

Before the changes in 2002, Medicare payments for IRFs were based on facility-specific rates. Under this system, reimbursements varied greatly across IRFs. In addition, each facility managed costs by averaging patient severity and length of stay over an entire year.

"Under the new system, Medicare said 'we looked at this data and we know how much it costs to care for someone who has had a stroke and we know how long they should stay in an IRF," Durkin said. "It should cost a facility x amount of dollars and for every stroke patient, we'll pay that flat amount based on patients' needs."

In order to determine how much a facility would receive for treating a patient, Medicare assigned patients to case mix groups – a classification system based primarily on diagnosis, age, and functional status at the time of admission. This means that measuring patient function has become very important since the creation of IRF-PPS. Other factors are also considered when determining IRF payment. For example, facilities that serve a large percentage of uninsured patients receive an adjustment, as do facilities in academic teaching centers, which have higher costs.

One factor that can have a significant impact on payment under the new system is whether a patient has a comorbid medical condition. For example, high blood pressure or diabetes, in addition to the primary condition that led to their IRF admission.

"The patient could potentially need extra medications, treatments, and may not be able to participate in therapy as aggressively," Durkin said. "Medicare recognizes that these comorbid conditions can change how much a facility should be paid. Before PPS, facilities didn't report these comorbidities consistently, but now it can have a very big impact on payment."

Essentially, PPS changed the importance of measuring patient function and reporting comorbidities because of the manner in which they are used to determine payment. With a number of key factors changing at once, IRFs struggled to reorganize in order to operate effectively under the new system.

Examining responses to prospective payment

In 2003, researchers at CROR received a grant from the National Institute on Disability and Rehabilitation Research (NIDRR) to study how IRFs had responded, and what strategies they employed, to take full advantage of the new payment system. In June of 2006, Durkin, Dr. Anne Deutsch, a clinical research scientist at CROR, and Dr. Allen Heinemann, CROR director, presented a paper entitled, "Inpatient Rehabilitation Facilities: Organizational Variation in Strategic Responses to Prospective Payment." The report contains data based on interviews conducted during the period from September 2004 through February 2005.

During this first phase of the study, Durkin traveled to nine IRFs in three states. "I went to some that were free-standing, some that were in-hospital units, and some that were part of large health care systems – in order to get a diverse sample," Durkin explained.

According to Durkin, the primary goal was, through intensive interviews, to find out what hospitals had done in preparation for, and during the transition into the IRF-PPS. In the first round of interviews, Durkin identified three primary strategies that facilities had employed: strategies to increase payment, strategies to decrease costs by reducing the length of stay, and strategies to decrease costs in other ways.

1. Strategies to increase payment

These strategies relied on the idea that since factors such as diagnosis, comorbidity, and functional status play such an integral role in payment, it is critical that staff members be trained thoroughly to document these characteristics.

"Hospitals had to get much more nitpicky about documentation," said Durkin. "Subtle differences in diagnosis became very important because it could put a patient into a different case mix group."

What Durkin found is that while IRFs were similar in the way they responded to diagnosing patients and assessing comorbid conditions, there was a significant amount of variance in determining motor functional status. Under the new IRF-PPS, Medicare changed the Functional Independence Measure, and created the Inpatient Rehabilitation Facility Patient Assessment Instrument that is used to measure functional status.

The regulations require facilities to report the lowest functional level observed in the first three days after initial admission. According to Durkin, the more "savvy" facilities realized that rather than measure functional status just once, as was the general practice before PPS implementation, determining the lowest functional level would require that function be observed and scored multiple times within those first three days.

"Not all facilities figured that out or thought it would make enough difference to make those changes in practice so that's why there was so much variance," Durkin said. "Determining appropriate diagnosis and comorbidity changed through staff education and training, but functional status was about whether or not you figured out the new rules."

2. Strategies to decrease costs by reducing length of stay

In order to address fears that rehabilitation patients would be discharged before they were ready to go home, Durkin found that some facilities began to provide weekend therapy hours, changed staffing to increase efficiency, and worked with acute care units to start therapy before the patient entered an IRF.

IRFs also began to change their case mix to decrease the number of patients who were so severely impaired that they couldn't participate fully in therapy. "They modified their case mix to have people that were likely to benefit from rehabilitation in a shorter amount of time," Durkin said.

3. Strategies to decrease costs in other ways

According to the CROR paper, IRFs tried to reduce costs in other ways such as trying to ensure that patients undergo expensive medical procedures while still in acute care settings. In addition, Durkin said there was a general cultural shift in cost consciousness across the facilities in the study. As the report said, "Individual care providers also reported feeling greater pressure to consider whether a particular cost was justified and/or was directly related to a patient's functional goals. They were more likely to forgo an extra service or treatments if they thought it would provide only marginal benefit relative to its cost."

Summary of results

The "nutshell" of the results, as Durkin explained, is that sites which shared organizational features also shared similar strategies with regard to PPS. For example, factors such as whether IRFs were free-standing or a unit in a hospital, whether or not they were a member of a multi-hospital system, and what the role is of physicians within the facility, all played a critical role in determining what strategies the hospital employed to maximize payment.

Durkin recently completed the second round of interviews with hospitals in the study. Results from the interviews will be released soon, which she says will shed light on how facilities have changed their practices and responded to ongoing regulatory changes affecting the industry.

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We will also highlight projects in our current research portfolio.

Dr. Elizabeth Durkin is leading a study that highlights organizational responses to Medicare regulations for inpatient rehabilitation facilities that may affect patient access to quality rehabilitation services; we report on her interviews with staff members at inpatient rehabilitation facilities. We will also note recent publications or presentations. Finally, we plan to feature the career and work of our staff in a regular column. Dr. Trudy Mallinson, associate director of CROR, is profiled in this inaugural issue; her voyage from the southern hemisphere to Chicago, and from occupational therapist to health services researcher is described.

By way of introduction, the Center for Rehabilitation Outcomes Research is directed by myself, Dr. Allen Heinemann. The Center focuses on research that documents rehabilitation patient outcomes and cost of care, examines the impact of health policy on access and service delivery in rehabilitation settings, and evaluates rehabilitation healthcare interventions. The Center disseminates information about the effectiveness and efficiency of rehabilitation through publications, public presentations, and through its website http://www.ric.org/research/outcomes. Our research and training portfolio is funded currently by the National Institute on Disability and Rehabilitation Research, the National Institutes of Health, and the Social Security Administration.

RIC was founded in 1954 as a specialized, free-standing, not-for-profit institution dedicated to the care and treatment of individuals with a variety of disabling conditions, including neurological, muscular, and orthopedic. For the past 16 years, RIC has been ranked by U.S. News & World Report as the best rehabilitation hospital in the country. It brings together high quality comprehensive care for individuals with disability, research into the mechanisms and management of disabling conditions and training of professionals and the public about disability and approaches to its management. Its flagship hospital has 155 beds and has full accreditation by the Joint Commission on Accreditation of Healthcare Organizations and the Rehabilitation Accreditation Commission (CARF).

In closing, I would like to highlight a state-of-the-science conference scheduled for February 12 and 13, 2007 near Washington, DC. In collaboration with several leading professional organizations, our Rehabilitation Research and Training Center on Medical Rehabilitation Outcomes and Effectiveness is hosting a "State-of-the-Science Symposium on Post-Acute Rehabilitation: Setting a Research Agenda and Developing an Evidence Base for Practice and Public Policy."

The goals of the conference are to:

- describe the current state of the knowledge regarding utilization, organization and outcomes of post-acute rehabilitation care;
- identify methodological and measurement challenges to conducting research in this area;
- foster the exchange of ideas among researchers, policymakers, industry representatives, funding agency staff, consumers and members of advocacy groups; and
- identify critical questions related to setting, delivery and payment of rehabilitation services that are of the highest priority for investigation.

In addition to 150 invited guests, registration will be available for 100 individuals. Stay tuned for additional details in our next newsletter, or for more information, visit our website – www.ric.org/research/outcomes.

Allen W. Heinemann, PhD
Director, CROR

State-of-the-Science Symposium

Dr. Allen Heinemann is chairing a State-of-the-Science Symposium on Post-Acute Rehabilitation to be held on February 12 - 13, 2007 in Crystal City, Virginia. Attendance is limited to 250 participants.

The goal of this two-day invitational conference is to develop an agenda for research that will support an evidence base for post-acute care rehabilitation, including issues related to measurement and research design, access to post-acute care rehabilitation services, organization of rehabilitation services, and outcomes attained by beneficiaries of Medicare and other insurers.

To register, or or more information, please visit https://www.firminc.com/symposiumregistration.asp

Sponsoring Organizations

In addition to the Center for Rehabilitation Outcomes Research at the Rehabilitation Institute of Chicago, other sponsors include: American Academy of Physical Medicine and Rehabilitation; American Congress of Rehabilitation Medicine; American Hospital Association; American Medical Rehabilitation Providers Association; APEC Publishing; Association of Academic Physiatrists; eRehabData; Federation of American Hospitals; Foundation for Physical Medicine and Rehabilitation; HealthSouth; Johns Hopkins Hospital; Kessler Institute for Rehabilitation; Rehabilitation Institute of Chicago; MetroHealth Rehabilitation Institute of Ohio; Moss Rehabilitation Hospital, Uniform Data System for Medical Rehabilitation.

IRF Facilities In Review (Continued From Page Three)

facilities if they did not comply. According to Deutsch, a study by the RAND corporation found that only 13 percent of rehabilitation hospitals were in compliance with the 75 percent rule using the CMS interpretation.

In response, the Government Accountability Office (GAO) appointed a panel of twenty experts, including Deutsch, to discuss the issue of compliance and to evaluate the list of qualifying conditions to determine if they were outdated and needed to be refined. According to the GAO report, the members of the panel discussed topics such as what characteristics defined IRFs as specialized providers, which patients benefited most from rehabilitation therapy, and ways to classify IRFs. "The way the rule is written, the focus is almost entirely on diagnosis," Deutsch said. "There are more factors than just diagnosis that are important such as age and functional status."

> "The bottom line is that more research needs to be done on which setting is best for which patients."
>
> *Dr. Anne Deutsch, Clinical Research Scientist*

IRFs vs. Skilled Nursing Facilities (SNFs)

In order to determine which patients benefited most from rehabilitation care in an IRF setting, Deutsch has conducted research examining specific conditions and comparing outcomes and reimbursement levels in both IRFs and in subacute rehabilitation SNFs. Due to the high costs of IRF care, Deutsch explained, it's very important to better understand which patients need it most and who can and who cannot receive quality care in another setting.

In September 2005, Deutsch and several other researchers, including Allen Heinemann, director of the CROR, published a study of Medicare beneficiaries who had sustained hip fractures – some of whom were treated in IRFs and some in subacute rehabilitation SNFs.

According to Deutsch, the difference between skilled nursing facilities and rehabilitation hospitals had, in many cases, been blurred and geography – whether a patient lived near an IRF or a SNF – played a role in where they were placed.

As the study said, "IRFs provide intensive rehabilitation services, and some subacute SNFs offer subacute rehabilitation programs, which provide 'comprehensive but less intense' rehabilitation therapy services. Since the early 1990s, the distinctions between IRFs and SNF-based subacute rehabilitation programs have diminished, and the most appropriate use of these two types of rehabilitation care based on outcomes and costs is unclear."

Deutsch and the other researchers found that treatment for hip fractures in subacute SNFs was less expensive than treatment in IRFs. The study's results also said that, in most instances, outcomes were the same or better in subacute SNFs than IRF-based rehabilitation.

In April 2006, Deutsch and several other researchers including Allen Heinemann, published another study that examined post stroke rehabilitation in both IRFs and SNFs to determine whether there were differences in outcomes and reimbursement within the two settings.

Researchers found that most stroke patients who received intensive therapy in higher cost IRFs had better functional outcomes than those who had received rehabilitation care in a SNF setting.

"Results support expert recommendations that motor and cognitive disabilities should be considered when selecting a setting for poststroke rehabilitation," the study said. "Most patients treated in IRFs had better outcomes -- either a higher likelihood of a community discharge or a higher level of motor function. A subgroup of patients with mild motor disabilities did equally well in both settings."

Payment policies in IRFs and SNFs were changed after data were collected for Deutsch's studies, and care provided in these setting has likely changed.

"The bottom line is that more research needs to be done on which setting is best for which patients," Deutsch said.

Your Feedback

Thank you for taking the time to read the inaugural edition of *CROR Outcomes*. We are interested in your opinions about this quarterly newsletter and our research. Please take a moment and let us know what you like or dislike about the newsletter. If you have a comment or suggestion you would like to share with our readers, please email your letters to <kstagg@ric.org>. We reserve the right to edit letters for brevity.

Acknowledgements

Our research is funded, in part, by grants from the National Institute on Disability and Rehabilitation Research, National Institutes of Health, Social Security Administration, and Rehabilitation Institute Foundation. Without their sponsorship, our research would not be possible.

Postdoctoral Fellowship Available

In collaboration with Northwestern University's Department of Physical Medicine and Rehabiliation and the Institute for Healthcare Studies, the Center for Rehabilitation Outcomes Research announces the availability of a post-doctoral fellowship available Fall 2007 or Winter 2008.

The two-year fellowship provides an opportunity for an individual who has recently completed a PhD or MD to gain expertise in health services research. A fellow would have an opportunity to join CROR scientists and NU faculty to focus on projects related to a Rehabilitation Research and Training Center on Measurement of Rehabilitation Outcomes and Effectiveness. Some of these research projects are described on our website at <http://www.ric.org/research/outcomes/rrtc_projects.php>. The program includes didactic course work offered as part of a masters in public health program at Northwestern University's Feinberg School of Medicine, a research practicum, an opportunity to complete original research, and development of grant writing skills. The goal of the program is to prepare fellows for a career in health services research and to contribute to our nation's capacity to address the health-related needs of persons with chronic illness and disability. Additional fellowship information is available at <http://www.medschool.northwestern.edu/ihs/education/index.html>.

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CROR Outcomes

Inaugural Issue…

Welcome to the inaugural issue of the Center for Rehabilitation Outcomes Research (CROR) quarterly newsletter. This newsletter reflects the growth of our program over the past few years and allows us to share our progress and research results with you. We hope you will find the newsletter of benefit and provide insights into measurement, policy, and rehabilitation outcome issues… *More on Inside Cover.*

IRFs In Review…

As the number of IRFs grew, the rehabilitation needs of patients were also changing. According to Dr. Anne Deutsch, the question that is being asked now is, do these patients actually belong in an IRF setting, or in a less expensive rehabilitation program… *More on Page 2.*

Contemporary Measurement Methods…

Dr. Trudy Mallinson's research has centered on designing instruments and improving existing rehabilitation instruments using Rasch analysis. In other words, developing instruments that are better able to detect differences in people's functional ability and quality of life… *More on Inside Cover.*

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