Caring Transitions

INTERACT Order Sets Target Avoidable Hospitalizations

This column strives to highlight innovations in care transitions. This month, we discuss an order set product that will enhance the INTERACT quality improvement program. Caring for the Ages does not endorse any specific product or product. — James Lett, MD, CMD

Considerable attention is now focused on preventing avoidable hospitalizations across a wide spectrum of health care stakeholders in the United States as a key way to improve care, prevent complications, and lower system costs. Yet, limited attention is being paid to, or initiatives being targeted at, the practice patterns of clinicians serving skilled nursing facilities most often responsible for transferring people to the hospital. Despite significant progress by organizations such as AMDA in development of leadership training, practice guidelines, and tools for clinicians in long-term care, major gaps remain in the translation of these resources into practice.

To fill these gaps, Think Research Corporation collaborated with an expert advisory panel convened by Joseph Ouslander, MD, the creator of INTERACT (Interventions to Reduce Acute Care Transfers), at Florida Atlantic University to develop evidence-based and consensus-derived INTERACT Compatible Order Sets that target 10 conditions responsible for the majority of avoidable hospitalizations. Clinician order sets, a well-established practice in acute care for improving patient outcomes while reducing costs, offer an important clinical resource to support reductions in avoidable hospital transfers. Think Research’s order sets were originally developed for acute care settings. A similar approach was used in the development of the INTERACT compatible order sets.

INTERACT Compatible Provider Order Sets

INTERACT is a widely adopted quality improvement program focused on the management of acute changes in condition in order to improve care and reduce avoidable hospitalizations (see https://interact.fau.edu/ or https://interact2.net/). INTERACT is designed to improve the early identification, assessment, documentation, and communication about changes in condition of patients in SNFs. A review of the INTERACT program is available in the Journal of the American Medical Directors Association (J Am Med Dir Assoc 2014;15:162–70).

Think Research (formerly PatientOrderSets) is the market leader in Canadian acute care development and deployment of provider order sets. Founded in 2006 by Chris O’Connor, MD, a practicing critical care physician, Think Research has established a unique collaborative approach to creating and improving clinical content. To advance from memory driven hand-written orders, order sets are developed to provide a real-time structured logic document that guides a clinician as he/she determines a patient’s individualized orders and authorizes treatment. Electronic order sets act as checklists that contain current evidence-based, best practice treatment options in a single document that follows the cognitive flow of a clinician. Order sets have been shown to improve patient safety and outcomes (including a reduction in avoidable 30-day readmissions) in hospitals and outpatient clinics in several studies.

Developing and maintaining the high-quality clinical content requires a strong quality control process and input from a variety of sources, including standards setting bodies (e.g., the Institute for Safe Medication Practices), cross-functional clinical perspectives (e.g., physicians, nurses, pharmacists, specialists), and subject matter experts including clinical specialists and/or clinical best-practice organizations (e.g., AMDA, American Geriatrics Society, and more).

More costly traditional publishing models of content development do not leverage the existing potential of specialist clinical networks, nor do they provide the data sharing required to enable an ongoing assessment and renewal cycle of clinical content.

Expert Advisory Group

Building on the success of Think Research’s model in Canada, the company decided to expand into U.S. health care. Given market conditions in the United States — with the Affordable Care Act and increasing attention on avoidable hospitalizations — long-term and post-acute care were identified as benefiting the most, as standardization and sharing of best practices through order sets were not currently in place.

Think Research began work on content in Canada through a federally funded grant (Canada Health Infoway) to expand the library of reference order sets to include long-term care. This led to a library of more than 50 order sets and several pilots in Canadian LTC homes, where initial studies have demonstrated what is already known from hospital deployments — a reduction in medical errors and increased use of best practices.

Because of the focus on avoidable hospitalizations, it made sense to start by developing order sets for conditions associated with these events. Think Research collaborated with Dr. Ouslander to develop the highest quality content for post-acute/long-term care. Input was gathered from an interdisciplinary expert advisory group.

### INTERACT Compatible Provider Order Sets: Urinary Tract Infection (UTI) Order Set

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<thead>
<tr>
<th>Skilled Nursing Facility</th>
<th>Urinary Tract Infection (UTI) Order Set</th>
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<tr>
<td><strong>Symptoms of UTI</strong> may include: dysuria, lower abdominal pain or tenderness, blood in urine, new or worsening urinary urgency, frequency or incontinence, and inability to urinate with no other identified cause. <strong>This order set is compatible with INTERACT™ Symptoms of Urinary Tract Infection (UTI) Case Path (<a href="http://interact.fau.edu">http://interact.fau.edu</a>).</strong></td>
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#### Urinary Tract Infection (UTI) Case Path

**Primary Device(s)**: Urinary Catheter

**Reason**: Change catheter and send urine sample obtained from new catheter

**Additional CIAs and Evidence**: Clinical specialists and/or clinical best-practice organizations (e.g., AMDA, American Geriatrics Society, and more)

**Additional CIAs and Evidence**: The cognitive flow of a clinician. Order sets guide a clinician as he/she determines a patient’s individualized orders and authorizes treatment.

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in order to refine order sets specifically focused on the 10 conditions addressed by INTERACT Care Paths and other tools that are responsible for documenting patient care in a majority of avoidable hospitalizations. This input was obtained during a 2-day in-person meeting that was preceded by draft review of the order sets by the panel. Then, the group provided more input through an iterative process over the next several months. The group specifically focused on 1) using evidence where it existed; 2) highlighting important factors to consider related to specific orders; and 3) structuring the orders in a way that aligns with how a clinician thinks when writing orders. The work of Think Research and the expert advisory group resulted in 10 reference order sets compatible with the 10 Care Paths of the INTERACT program (J Am Med Dir Assoc 2015;16:524–6).

**Pilot Testing the Order Sets**

Practices that implement order sets require a strong change management approach and should customize to local clinical settings to obtain the greatest impact. Reference order sets are reviewed by the clinical leadership of a practice and/or facility to 1) obtain user buy-in and adoption; 2) ensure alignment to facility capability and workflow (and confidence in decisions to treat on-site); and 3) align with local formularies to ensure availability of treatments in preventing transfers.

In addition to clinical customization, integration with local information technology (e.g., a facility and/or provider electronic health record system) facilitates easier adoption by clinicians. To accommodate the current landscape of multiple EHR systems both within and across health care settings, Think Research has developed an EHR-neutral technology platform that enables integration into any IT scenario, including existing paper-based charting.

**INTERACT Compatible Order Sets**

are currently being used to support the telemedicine program that is being rolled out in all six of the University of Pittsburgh Medical Center-owned SNFs under the leadership of Steven M. Handler, MD, PhD. The telemedicine service is available to support the remote evaluation of residents with acute changes of condition during evenings and weekends when providers are generally unavailable. Dr. Handler was part of the Think Research U.S. LTC expert advisory group and is responsible for the local change management approach and clinical customization of the order sets to the UPMC clinical environment. To maximize the effectiveness of the order sets, they were refined based on the clinical capabilities, medications available in the emergency boxes, and policies and procedures of the SNFs.

**INTERACT Compatible Order Sets**

are also being pilot tested as part of a Centers for Medicare & Medicaid Services Innovation Award focused on reducing unnecessary hospitalizations of long-stay SNF patients (see http://innovation.cms.gov/initiatives/rahnf/). This pilot and evaluation project is underway in several Nevada SNFs through a partnership with HealthInsight, a quality improvement organization where Steven Phillips, MD, serves as medical director for the CMS project. This work is intended to help refine real-world workflows, data, and experience to promote further dissemination of the order sets. Numerous studies have confirmed the positive impact on outcomes for both patients and payers in a health system through order set deployment, and we expect the work in Nevada to corroborate a similar impact in the SNF setting.

**Value Proposition**

Order sets provide value to health care delivery in several ways. They have been shown in early studies to increase the use of best practices in ordering and reducing medical errors. There are more potential cost savings through a reduction in hospital-acquired complications. Given current funding models for SNFs, the most significant financial incentives result from the impact on census in a facility — either through a reduction in lost days to current residents or through an increase in referrals resulting from a facility’s improved reputation.

There are many other potential financial benefits to order sets. Detailed, order-level data grouped around patients, clinicians, clinical issues, and organizations will provide a quality improvement platform to support examination of practice variability against a variety of patient outcomes.

To find out more about order sets, visit www.thinkresearch.com, or email info@thinkresearch.com.

Mr. Robertson currently leads the U.S. launch of Think Research, establishing a collaborative network for health system transitions of care tools, including the development of INTERACT Compatible Order Sets with Florida Atlantic University.

Dr. Ouslander is a professor and senior associate dean for geriatric programs; chair, Department of Integrated Medical Sciences, Charles E. Schmidt College of Medicine; and professor (courtesy), Christine E. Lynn College of Nursing, at FAU. Dr. Ouslander is also the executive editor of The Journal of the American Geriatrics Society.

Dr. Leit, a past AMDA president, chaired the AMDA workgroup that created the clinical practice guideline “Care Transitions in the Long-Term Care Continuum” and currently is chairman of the AMDA Transitions of Care Committee. Dr. Leit and his wife, Cheryl Phillips, MD, were compensated members of the panel assembled by Dr. Ouslander to assist in the creation of the order sets discussed in this column.