



Notes from the Editor

by George Gaebler, MS Ed, RRT, FAARC

This issue of the Bulletin contains an overview of the Minimum Data Set version 2.0, the resident assessment tool used in skilled nursing facilities to meet Medicare reimbursement requirements. We're also running excerpts from a report by the Agency for Healthcare Policy and Research on new prediction models aimed at identifying nursing home residents with lower respiratory tract infections without benefit of chest x-ray, a development that could help many of our patients avoid costly and inconvenient hospitalizations for pneumonia.

Both of these informative articles provide need-to-know information for members of the section. However, the goal of this newsletter is really to provide a forum for section members to share information about what they are doing in their facilities. To that end, I want to encourage all of you to consider authoring a short article for an upcoming issue. Many times practicing RTs don't believe what they have to say would be of interest to others, but in reality, nothing is more interesting to a fellow therapist than information from another therapist. Articles can take many forms, but here are just a few ideas to get you started:

- Present an intriguing case study.
- Share a new program implemented in your department.
- Express concerns about professional matters, such as the growing need for more RTs in our practice area.
- Report on research related to subacute care or write product or book reviews.
- Present results of informal surveys you may have conducted via the section e-mail list, phone, or other venues.

Continued on page 2

Notes from the Chair: The MDS and the RT

by Melinda Gaylor-Childress BSEd, RRT

Many RTs may not be familiar with the Minimum Data Set version 2.0, or MDS, the resident assessment tool required by Medicare for skilled nursing facility reimbursement. Knowledge of this tool is essential to understanding the care delivered in our facilities.

According to the *MDS 2.0 Resident Assessment Instrument (RAI) User's Manual*, MDS is a core set of screening, clinical, and functional status elements, including common definitions and coding categories, which forms the foundation of the comprehensive assessment for all residents of long-term care facilities certified to participate in Medicare and Medicaid. The items in the MDS standardize communication about resident problems and conditions within facilities, between facilities, and between facilities and outside agencies.

Here, I include some facts about the MDS related to Section P and additional information and news affecting the MDS. However, if you would like to acquire additional information about the MDS, check out these web sites:

- www.hcmarketplace.com - a great source for reference books
 - <http://cms.hhs.gov/medicaid/mds20/default.asp> - a government website with related information
- Now, let's begin by describing Section P as it relates to respiratory care:
- Section P1 Special Treatments, Procedures, and Programs: The intent is to identify any special treatments, therapies, or programs that the resident received in the specified time period.
 - Section P1 Treatments: Boxes are checked if resident received treatments.
 - Section P1 Box G Oxygen: Includes continuous or intermittent oxygen via mask or cannula (does not include hyperbaric oxygen for wound therapy).
 - Section P1 Box I Suctioning: Includes nasopharyngeal or tracheal aspiration only. Oral suctioning should not be coded here.
 - Section P1 Box J Tracheostomy Care: Includes cleaning of tracheostomy and cannula.
 - Section P1 Box L Ventilator or Respirator: Assures adequate ventilation in residents who are, or who may become, unable to support their own respiration. Includes a type of electrically or pneumatically powered closed system mechanical ventilator or support device. Does not include continuous positive airway pressure (CPAP) or bilevel positive airway pressure (BIPAP) devices.

Clarification on the use of ventilators for CPAP or BIPAP: According to the *MDS 2.0 User's Manual*, residents with sleep apnea undergoing treatment with a mask-like device is being used to keep the airway open during sleep cannot be coded as using a ventilator or a respirator. According to the American Academy of Otolaryngology-Head and Neck Surgery, Inc., a CPAP device delivers air into the airway through a specially designed mask or pillows. The mask does not breathe for the patient; the flow of air simply creates enough pressure to keep the airway open upon inhalation. Ventilators are sometimes used to deliver this type of noninvasive ventilation when CPAP or BIPAP machines are not available. In these cases, the ventilator is merely providing air, not traditional life support via invasive measures, and does not require the same level or intensity of care that life support ventilation demands.

- Section P1 Box R Training: Resident is regularly involved in individual or group activities with a licensed skilled professional to attain goals necessary for community living. May include training family or other caregivers.
- Section P1 B Therapies: In this box, the MDS coordinator is to record the number of days and total minutes of the therapies that were administered. Includes only therapies ordered by a physician, based on a therapist's assessment and treatment plan, that

Continued on page 2

Section Connection

GET IT ON THE WEB

Help the AARC increase its efficiency by signing up to receive the Bulletin via the section homepage on the AARC web site (www.aarc.org). To change your option to the electronic Bulletin, send an email to: mendoza@aarc.org.

SECTION E-MAIL LIST

Start networking with your colleagues via the section e-mail list. Go to the section homepage on www.aarc.org and follow the directions to sign up.

If you need assistance in preparing your articles, please contact me at the addresses/numbers listed below. I will be happy to help in any way I can. For a complete list of copy deadlines for upcoming Bulletins, check the "Section Connection" area of this issue. ♦

MDS 3.0 Enters Testing This Summer

The next edition of the Minimum Data Set – 3.0 – is currently in the hands of the Rand Corporation of Santa Monica, CA, the contractor that won the government contract for validation of the instrument. In the meantime, representatives from Harvard Medical School and the Colorado Foundation for Medical Care will also be working on the new version, and the Centers for Medicare and Medicaid Services is contracting with companies to work on education and training tools associated with the new MDS, including a rewrite of the Resident Assessment Instrument User's Manual. ♦

Subacute Bulletin

published by the
American Association for Respiratory Care
11030 Ables Lane
Dallas, Texas 75229-4593
(972) 243-2272 • (972) 484-2720 FAX
e-mail:info@aacrc.org

Chair

Melinda Gaylor

Director of Training and Accreditation
Advanced Lifeline Services
Louisville, KY
(502) 426-1958, ext. 122
(502) 426-2337 fax
melinda.g@alsvents.com

Editor

George Gaebler, MSED, RRT, FAARC

Dept. of Respiratory Care, Rm. 516
University Hospital
750 E. Adams St.
Syracuse, NY 13210
(315) 464-4490
(315) 464-4497 fax
gaeblerg@upstate.edu

Nursing Home Residents with Lower Respiratory Tract Infection: Improving Outcomes

EDITOR'S NOTE: The following information comes from a report published online in June by the federal Agency for Healthcare Policy and Research.

Researchers have identified a prediction rule that may help clinicians who care for nursing home residents identify pneumonia without a chest x-ray. Another predictive model may help determine the most appropriate care by identifying nursing home residents at low risk of lower respiratory tract infection.

Introduction

Lower respiratory tract infection (LRI), which includes pneumonia, bronchitis, and tracheobronchitis, is the leading cause of mortality and hospitalization in nursing home residents. Often, the signs and symptoms of pneumonia, in particular, are not apparent in elderly patients, making diagnosis more complicated. In addition, clinician visits to these residents are few and sporadic and radiological facilities are not readily available. This results in residents being transferred to the hospital just for the purpose of x-ray evaluation. Researchers in Missouri have identified a prediction rule that may help clinicians who care for nursing home residents identify pneumonia without a chest x-ray.

Once an LRI has been diagnosed, clinicians can then determine the most appropriate care. For nursing home residents, many of whom are chronically ill, determining the severity of the illness is a critical step in deciding whether they should be treated in the nursing home or in the hospital. The Missouri researchers have identified patient characteristics predictive of 30-day mortality and used them to distinguish residents at low risk of dying from LRIs. Residents at low risk of dying may be able to receive nursing home care, thereby avoiding the potential complications associated with hospitalization.

The studies, "Clinical Findings Associated with Radiographic Pneumonia in Nursing Home Residents" and "Predicting Mortality in Nursing Home Residents with Lower Respiratory Tract Infection," were conducted in nursing homes in central Missouri and the St. Louis, MO, area. Both studies were funded by the Agency for Healthcare Research and Quality (AHRQ). Additional funding was provided by the Robert Wood Johnson Foundation Generalist Physician Faculty Scholars and an Institutional National Research Service Award from the Health Resources and Services Administration.

Methods

Between August 15, 1995, and September 30, 1998, researchers in Missouri identified participants from 36 nursing homes in central Missouri and the St. Louis, MO, area. As part of the Missouri LRI Project, the researchers analyzed 2,334 episodes of illness in 1,474 nursing home residents. Those residents with signs or symptoms of LRI whose chest x-rays showed evidence of pneumonia were evaluated to determine the pattern of symptoms that would indicate a high risk of pneumonia. Researchers developed a simple scoring system (range = -1 to 8) based on eight factors that independently predicted pneumonia without obtaining a chest x-ray:

- Increased pulse
- Increased respiratory rate (30 or higher)
- Temperature of 38° C or higher
- Somnolence or decreased alertness
- Presence of acute confusion
- Lung crackles on auscultation
- Absence of wheezing
- Elevated white blood cell count

In a separate study of mortality risk due to LRI conducted during the same time period as the pneumonia study, these same researchers evaluated 1,406 episodes of LRI in 1,044 residents of 36 nursing homes in central Missouri and the St. Louis, MO, area. Study participants were considered eligible if they were age 60, in the facility at least 14 days, off an antibiotic in the last 7 days for a previous LRI, were expected to live more than 30 days, did not have AIDS, and whether they and their physicians and families agreed to participate. Clinical evaluations were recorded for several variables and compared for levels of differentiation and mortality after 30 days.

Continued on page 3

Continued from page 2

NURSING HOME RESIDENTS WITH LOWER RESPIRATORY TRACT INFECTION: IMPROVING OUTCOMES

Researchers developed a point system for clinicians specific to nursing home residents based on eight factors:

- Serum urea nitrogen
- White blood cell count
- Body mass index (BMI)
- Pulse rate
- Activities of daily living (ADLs) status
- Low total lymphocyte count of < 800/ μ l
- Male sex
- Decline in mood over 90 days

The scores derived from the point system are then evaluated to determine the most appropriate care for the resident. A score of 0-4 indicates low risk for death occurring 30 days after diagnosis of LRI, and a score of 5-6, relatively low risk.

In developing this new mortality model, the researchers built on the work of earlier research funded by AHRQ and conducted by the Patient Outcomes Research Team (PORT) on Community-Acquired Pneumonia. The PORT developed and validated the Pneumonia Severity Index (PSI), which uses broad categories to identify pneumonia patients living in the community who can be treated safely at home. The LRI tool is more sensitive to residents of nursing facilities, giving more weight to variables such as ADLs, mood decline, and markers of poor nutritional status.

Inclusion criteria for both studies were the same, with the exception that residents in the mortality study had to meet the study definition of an LRI, whereas all those evaluated in the pneumonia diagnosis study were included to determine whether they met the study definition of an LRI.

Findings and discussion

Researchers' findings confirmed that pneumonia in nursing home residents usually is associated with few symptoms, but a simple clinical tool can identify residents at high risk for pneumonia without the use of a chest x-ray. Among 2,334 episodes of illness in 1,474 nursing home residents, 45% of chest x-ray reports suggested possible or definite pneumonia. Yet in 80% of pneumonia episodes, patients had three or fewer respiratory or general symptoms. However, only 8% of patients had no respiratory symptoms. The 33% of residents scoring three or more points had more than a 50% probability of pneumonia, and the 24% of residents who had a score of 2 points had a 44% probability of pneumonia.

Study limitations included the caution that residents were from a single state and the possibility of incomplete or missed clinical findings. The researchers note that if their findings are confirmed, doctors should consider treating residents at high risk of pneumonia - those with a score of at least two or three points on the scoring system - without obtaining a chest x-ray. For residents with a score of one or less, doctors should obtain an x-ray as a guide to treatment.

In the mortality risk study, researchers developed a new predictive model for 30-day mortality risk in nursing home residents with LRIs. Fifty-two percent of residents had a low (score of 0-4) or relatively low (score of 5-6) predicted 30-day mortality, with 2.2% and 6.2% actual mortality, respectively. Again, researchers cautioned that the residents were from a single state. In addition, they noted limitations of some missing or potentially misclassified data. Still, the results are useful for identifying low-risk residents. If confirmed in other states, the prediction rule can be helpful to clinicians and researchers in deciding between nursing home care and hospitalization for residents with LRI.

For more information

Study findings are presented in an article in the November 2001 issue of *The Journal of Family Practice*: Mehr DR, Binder EF, Kruse RL, et al. Clinical findings associated with radiographic pneumonia in nursing home residents. *J Fam Pract* 2001 Nov;50(11):931-7; and *The Journal of the American Medical Association*: Mehr DR, Binder EF, Kruse RL, et al. Predicting mortality in nursing home residents with lower respiratory infection: The Missouri LRI Study. *JAMA* 2001 Nov;286(19):2427-36.

INTERNET CITATION

Nursing Home Residents with Lower Respiratory Tract Infection. June 2003. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/research/nursnglti.htm>. (The web site includes the complete report, along with two tables which can assist in calculating points in the prediction models.) ♦

Continued from page 1

NOTES FROM THE CHAIR: THE MDS AND THE RT

documented in the resident's clinical record. The therapy treatment may occur either inside or outside the facility. Each of the following therapies, along with number of days and total number of minutes recorded in the appropriate box on the MDS: speech language pathology, audiology services, occupational therapy, physical therapy, and respiratory therapy.

Let's discuss respiratory therapy minutes. According to MDS guidelines, these consist of "therapy services that are provided by a qualified professional." Qualified professionals for the delivery of respiratory services include trained nurses, who can be counted in this box. A "trained nurse" refers to a nurse who received specific training in the administration of respiratory treatments and procedures. This training may have been provided at the facility during a previous work experience or as part of an academic program.

Treatments that can be counted as therapy minutes include coughing, deep breathing, heated nebulizers, aerosol treatments, assessing breath sounds, and mechanical ventilation, all of which must be provided by a qualified professional (in other words, a trained nurse or respiratory therapist). This does not include handheld medication dispensing. Only the time that the qualified professional spends with the resident can be counted.

It is important to note that these minutes should not be confused with "units" (1 unit = 15 minutes). Therapists should record an estimated time spent with the resident in actual minutes. Minutes are not reimbursed directly; however, the minutes are used to categorize Respiratory Utilization Groups (RUGs) classifications. It is unfortunate that, respiratory therapy does not affect the rehabilitation categories, although that could change, as the MDS regulations undergoes updates. In fact, the Centers for Medicare and Medicaid Services is already launching a test version of the MDS version 3.0 this summer. If we accurately record minutes, we might one day be included in the reimbursement as a therapy, rather than under the routine nursing care.

So, for those of you working in facilities where nursing provides floor therapy, please discuss the importance of recording the minutes of therapy they provide, as well as those provided by the respiratory therapy staff.

In our next Bulletin, I will discuss MDS instructions on the reporting of the actual minutes of therapy recorded by a resident. ♦

Mark your calendar for

RC WEEK
October 19-25, 2003

Order your supplies now!

Visit our online store
at www.aarc.org