Overview of Significant Changes in the Minimum Data Set for Nursing Homes Version 3.0

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A B S T R A C T

The Minimum Data Set (MDS) is a standardized assessment that is completed on all residents admitted to Medicare certified nursing homes in the US. It is also completed on all residents admitted to Veteran Health Administration Community Living Centers. Its content addresses multiple domains of resident health and function and is intended to facilitate better recognition of each resident's needs. A new version of the MDS, MDS 3.0, was implemented in October 2010. This article highlights significant clinical changes found in the MDS 3.0, including new structured resident interviews to assess mood, preferences, pain and cognition; inclusion of the Confusion Assessment Method to screen for delirium; revised psychosis and behavior items; revised balance and falls sections; revised bladder and bowel assessment items; revised pressure ulcer assessment items; revisions to the nutrition items; items reporting on resident expectations for return to the community; and changes to race/ethnicity item and language report. These changes aim to improve the clinical utility of these assessment items.

In October 2010, the Centers for Medicare and Medicaid Services (CMS) implemented version 3.0 of the Minimum Data Set (MDS 3.0) in all certified nursing homes in the United States; the Veteran's Health Administration followed suit in 2012. This revision was initiated by CMS in response to concerns about the performance of the MDS 2.0 and the need to align MDS with over a decade of changes in nursing home (NH) care, resident characteristics, and advances in resident assessment methods.

The MDS has been a central part of federal NH policy and quality efforts since its introduction in 1991. NHs invest time and resources in completing MDS. Its content drives a significant part of facility documentation and is intended to inform care planning. Since its introduction, it has been revised1,2 and its applications have expanded to include providing data for facility-level quality indicator reporting,3-5 determination of post-acute care reimbursement,6 and, in some states, case-mix based Medicaid reimbursement. Over 14 million MDS assessments are entered into the national NH database annually.

Although some facilities traditionally have tasked specific personnel with completing the MDS assessment, the scope of items and the potential of MDS for assisting with problem identification and care planning would argue for all members of the interdisciplinary team to be familiar with its content. Changes were made to items and instructions across the entire assessment. Although the MDS is used for quality measurement and reimbursement, the primary focus of the national test to develop MDS 3.0 was to improve the assessment of NH residents so that care planning could be better targeted and individualized. The research team was especially concerned about improving the validity and clinical utility of key clinical sections whenever feasible and not substantially increasing the time burden for completing the MDS. In this article, we describe some of the significant clinical changes between MDS version 2.0 and MDS 3.0.
Methods for Revision

An accompanying article\textsuperscript{7} details the background and methods for developing and testing a draft MDS 3.0. Briefly, CMS contracted with RAND and its subcontractor, Harvard, to revise the MDS. Early stakeholder input established goals for the revision that included increasing clinical utility, improving reliability and accuracy, decreasing burden, and increasing resident voice in assessments. CMS also wanted revisions to support its current approach to prospective payment and quality indicator reports.

The research team engaged in a deliberate, iterative process to incorporate provider and consumer input, expert consultation, scientific advances in clinical knowledge about screening and assessment, CMS experience, and intensive item development and pilot testing by a national VA consortium. This process allowed the final national testing of MDS 3.0, which was conducted in 71 community NHs in eight states and 19 VA Community Living Centers in seven states.

Upon completion of the national test and analysis of item performance, the research team provided CMS with a recommended MDS 3.0 form that was posted for public comment in January 2008. Draft instructions, based on the instructions and questions and answers from the national test were also given to CMS. CMS proceeded to conduct internal review and revised the MDS content to further align the MDS with its program activities, including work to revise the Resource Utilization Groups (RUGs). CMS posted a final MDS 3.0 item set and an instruction manual in October 2009 and July 2010, respectively. CMS has made minor modifications and instruction clarifications since that time.

Significant Changes in MDS 3.0

Resident Voice Items

Perhaps the most significant conceptual change found in MDS 3.0 is the inclusion of direct resident interviews to assess several key domains of health—cognition, mood, preferences for daily routines, preferences for activities, and pain. The changes to these sections reflect those tested in the national test. For each section, a skip pattern instructs the assessor to attempt the interview with all residents who are able to make him or herself understood at least some of the time.

The MDS 3.0 instruction manual provides tips on how to interview older adults, with particular emphasis on ensuring they can hear the questions. These tips were developed in the national training and testing. For all interviews, except the cognitive interview, interviewers are encouraged to write out the response choices in large clear print and show and read them to the resident when asking them to respond. In addition, a training video is available.\textsuperscript{8,9} Interviews should be conducted in private and in the language that each resident prefers to use when communicating with his or her providers (reported in a new language assessment item in MDS 3.0). If a resident cannot communicate or is unwilling or unable to complete the interview, then the assessor is provided alternative observational assessment items that rely on information from staff members, chart review, and observations of resident behaviors.

Although the instruction manual for many MDS 2.0 assessment items instructed the assessor to observe the resident, talk to the resident, interview staff across shifts, and review the medical record, protocols for collecting the information and synthesizing it across data sources were not provided. The new MDS 3.0 interview items provide specific, tested questions and responses to be asked of all residents capable of making himself or herself understood.

Mood Interview

As detailed in the accompanying article,\textsuperscript{10} the MDS 3.0 mood interview is the 9-Item Patient Health Questionnaire (PHQ-9) that screens for signs and symptoms of depression. The PHQ-9 has been validated and is used increasingly to identify and monitor mood disorder in other health care settings, including outpatient, rehabilitation and hospital settings.\textsuperscript{11–18} It provides a standardized severity score and a rating for evidence of a possible depressive disorder. In the MDS 3.0, the PHQ-9 questions use an unfolding approach, first asking if the resident has experienced the symptom at all in the past 2 weeks. If the resident answers in the affirmative, then they are asked how often they have felt that way. Frequency choices on MDS are “never or 1 day” (value: 0); “2–6 days or several days” (value: 1); “7–11 days or half or more than half of the days” (value: 2), and “12–14 days or nearly every day” (value: 3). All questions, response choices, and codes are included on the MDS 3.0 form.

As a recognized and validated mood screener, the PHQ-9 has utility beyond MDS reporting. Responses to PHQ-9 can indicate possible depression and can be used to monitor response to therapies initiated to manage depression. The PHQ-9 constituent items and score do not diagnose a mood disorder. However, the items and score correspond to the presence and pervasiveness of Diagnostic and Statistical Manual of Mental Disorders IV criteria symptoms for depression, making the PHQ-9 a useful standardized measure for communication with clinicians and mental health specialists regardless of their familiarity with MDS 3.0. Evaluation of the etiology of reported signs and symptoms is still needed. However, the PHQ-9 is highly correlated with independent evaluations of mood and should alert providers regarding the need for follow-up.

Responses can be interpreted as follows: Possible major depression—5 or more symptoms present on 7 or more days (Item (i) thoughts of self harm counts as a symptom if present 2 or more days) and at least one of these is (a) little interest or pleasure in doing things, or (b) feeling down, depressed, or hopeless. Possible minor depression—2 to 4 symptoms present on 7 or more days and at least one of these is (a) little interest or pleasure in doing things, or (b) feeling down, depressed, or hopeless. In addition, the PHQ-9 has been shown to be sensitive to treatment effects. To gauge and follow severity of mood symptoms over time, PHQ-9 responses can be used to generate a total severity score. This summary score is included on the MDS 3.0 form and indicates the extent of potential depression symptoms. Severity scores can be interpreted as follows: 1–4 = minimal depression; 5–9 = mild depression; 10–14 = moderate depression; 15–19 = moderately severe depression; 20–27 = severe depression.

Preference Interviews

The Customary Routine and Activity items in MDS 2.0 are replaced by a resident interview that ascertains the importance of daily support and care and the importance of particular activities to each resident. The Preference Assessment Tool (PAT) items were developed specifically to assess NH residents’ preferences\textsuperscript{19,20} and, thus, facilitate more individualized care planning. The response options “Very important, somewhat important, not very important, not important at all and important but can’t do, no choice” were identified, through testing with NH residents, as those that allowed residents to express their preferences without becoming frustrated or confused by limited choices. The “important but can’t do, no choice” response was added to respond to residents’ difficulty in expressing preferences for activities or support that they believe might not be feasible given their own or the facility’s limitations. If a resident is not able to respond, a family member or significant other who knows the resident well can be asked.

Pain Interview

The MDS 3.0 pain interview begins by asking the resident if he or she has had pain or hurting at any time in the last 5 days. If the
resident responds yes, then they asked about frequency ("almost constantly, frequently, occasionally, rarely"), whether pain has made it hard to sleep or caused them to limit day-to-day activities, and the severity of their worst pain. For pain severity, one of two commonly adopted scales can be used depending on provider and resident preference. The numeric rating scale (0–10) gives the anchors “zero being no pain and ten as the worst pain you can imagine.” The verbal descriptor scale gives response choices “mild, moderate, severe, very severe/horrible.” Both scales were already used in various nursing homes and other health care settings prior to MDS 3.0 testing.22–27 Potentially aligning MDS with best practices in NHs and improving communication with providers in other settings. A crosswalk has been published for the two severity scales.28 As with mood and preference responses, assessors are instructed to show the response scale to the resident when offering choices. The questions related to effect on sleep and activities can aid providers in understanding how a given level of severity affects the resident’s function.

Cognitive Interview

As detailed in the accompanying article29 and an initial pilot study,30 the Brief Interview for Mental Status (BIMS) comprises the performance based assessment of cognition. The BIMS reports on the resident’s response to items common to other cognitive assessments: repetition of three items, temporal orientation (year, month, day) and recall of three items. The three items, sock, blue, bed are stated and then reinforced with category cues or prompts “sock, something to wear; blue, a color; bed, a piece of furniture.” The resident, when asked to recall the items, is first asked to do so without the prompt. If able to recall without prompting, full credit (2 points) is awarded for each item recalled. If the resident is unable to recall an item, then the interviewer provides the prompt. If the item is recalled after prompting, 1 point is awarded. For orientation to year (3 points possible), partial credit is given if the answer is within 1 year (2 points), or 2–5 years (1 point). For month (2 points possible if accurate within 5 days), partial credit (1 point) is given if the response is within 6 days to 1 month of the correct month. The MDS 3.0 is formatted to support the interview and scoring, showing questions, prompts, and scoring rules on the form.

Most NH assessors who used the BIMS in pilot and national testing reported that they preferred the MDS 3.0 interview to the MDS 2.0 assessment approach and that staff would be better able to use the BIMS to calculate a score and trigger RAPs (see accompanying article Saliba, Buchanan, Edelen et al). The resulting BIMS score is between 0 and 15 and the BIMS total score is highly correlated with 3-MS scores. Scores from a carefully conducted BIMS assessment where residents can hear all questions and the resident is not delirious suggest the following distributions: 13–15 = no or mild cognitive impairment; 8–12 = moderate impairment; 0–7 = severe impairment. In addition, the inclusion of these commonly recognized cognitive items (registration, temporal orientation, and recall) is intended to improve communication with providers across settings.

Staff Observation Items for Residents Who Cannot Be Interviewed

For residents who cannot make themselves understood at least some of the time or who cannot complete an interview, MDS 3.0 contains alternative staff observation items for mood, pain, and cognition. For preferences, a family member or significant other may be interviewed, with the alternative staff observation to be employed when the resident is unable to answer and a proxy is not available. Because of the importance of including residents in assessing these topics and because staff members recalled observations or medical record notes are often less valid than resident self-report for these topics, interview is the preferred method for completing these items.31,32 For mood, preferences, pain and cognition, the MDS 3.0 staff-based items are completed only if the interview cannot be conducted. In the national MDS 3.0 trial, approximately 15% of persons scheduled for MDS assessments did not complete interviews.

For these staff observation items, the assessor is asked to observe and talk to the resident, talk to staff and review the record (consistent with MDS 2.0 instructions for assessing these items). For cognition, the alternative staff observation items are the MDS 2.0 cognitive items that can be used to calculate a cognitive performance scale.33,34 For mood, the staff items rely on conducting a modified PHQ-9 interview, the PHQ-9 Observational Version (PHQ-9 OV),10 with key informants. The PHQ-9 OV includes an additional question about irritability. The staff items for Daily and Activity Preferences consists of a check-list to be answered based on observations of the resident’s response when being exposed to a particular activity. The staff assessment for pain presence is a checklist of observable behaviors drawn from longer pain assessment instruments.

The scales and items we group as resident voice allow the resident’s self-report to serve as the primary and sole information source for completing the item. For many of the changes that follow, the resident’s self-report continues important, but is one of several data sources considered in completing the item.

Delirium, Psychosis and Behavior Items

The reported assessment period for delirium, psychosis and behavior items is 7 days.

Delirium

The new delirium section is based on the Confusion Assessment Method (CAM), a standardized instrument developed to facilitate the detection of delirium,35,36 and that originally operationalized assessment of DSM-III-R criteria for delirium. Evaluations of the CAM in hospital and post-acute care settings have shown that the CAM has overall 94% sensitivity and 89% specificity.37 The CAM has been included as a recommended approach to screen for delirium in over 30 guidelines.38–40 The MDS 3.0 asks about the presence of and provides examples of observable behaviors or signs for inattention, disorganized thinking, altered level of consciousness, and psycho-motor retardation. The instruction manual includes full definitions for the signs, and symptoms, and the form provides shorter definitions. For each behavior, the response choices are: “behavior not present; behavior continuously present, does not fluctuate; behavior present, fluctuates (comes and goes, changes in severity).” The final CAM question asks whether there is evidence of an acute change in mental status from the resident’s baseline. Because valid delirium screening protocols rely on staff conducting a structured, objective cognitive screen to better observe delirium-related behaviors,40,41 the MDS 3.0 CAM is informed by observations made during the BIMS as well as review of the medical record.

Psychosis

Hallucinations and delusions are included as reportable items in both MDS 2.0 and MDS 3.0. Because prior evaluations noted some errors in how staff coded these items, the primary changes in MDS 3.0 are moving the items from a long check list of signs and symptoms and including definitions on the form for each item to aid in responding. Hallucinations are defined as “perceptual experiences in the absence of real external sensory stimuli” and delusions as “misperceptions or beliefs that are firmly held, contrary to reality.”
Behavior and Impact of Behavior

The MDS 3.0 behavior items were organized to allow clearer language, symptom grouping, and consideration of the impact of behaviors, while avoiding stigmatizing or recriminating labels. The assessment asks about the presence and frequency of “physical behavioral symptoms directed toward others,” “verbal behavioral symptoms directed toward others,” and “other behavioral symptoms directed toward others.” Examples of each group of symptoms are provided. Frequency choices are “behavior not exhibited; behavior of this type occurred 1–3 days; behavior of this type occurred 4–6 days, but less than daily; behavior of this type occurred daily.” The MDS 3.0 acknowledges that appraising the severity or clinical significance of these behaviors is also important. If any of these behavioral signs/symptoms were present, then the assessor is asked to evaluate their impact on the resident. Separate items ask about whether the behavioral symptoms put the resident at risk for physical injury or illness, interfere with care, or interfere with participation in activities or social interactions. Impact on others is also assessed, focusing on risk for physical injury, intrusion on privacy and activities, and disruption of the care or living environment.

Rejection of Care

This label replaces and redefines the MDS 2.0 item “resists care.” The new label and definition were selected to improve clarity and reliability, and reduce stigma. The new item focuses on rejection of goal directed care by asking “Did the resident reject evaluation or care (eg, bloodwork, taking medications, ADL assistance) that is necessary to achieve the residents goals for health and well-being?” Do not include behaviors that have already been addressed (eg, by discussion or care planning with the resident or family), and determined to be consistent with resident values, preferences or goals.” This item is grounded in a conceptual model that explains rejection of care behaviors.42

Wandering

Wandering is retained as a MDS item, but removed from the behavioral symptom grouping. Separating wandering from pacing and other behavior disturbances is an effort to signal that wandering is not always an activity that warrants intervention and that it may be accommodated in facilities. If present, the assessor is asked “Does the wandering place the resident at significant risk of getting to a potentially dangerous place?” and “Does the wandering significantly intrude on the privacy and activities of others?” By asking about these contextual factors, the new item is useful for determining whether there is a need for intervention.

Falls and Balance Items

Balance During Transitions and Walking

The MDS 3.0 balance questions were changed to items that simply and quickly assess stability during activities associated with increased risk for falling. These activities are moving from a seated to standing position, walking (with assistive device if used), turning around, moving on and off toilet, and surface to surface transfers. Response choice are “steady at all times; not steady but able to stabilize without human assistance; not steady, only able to stabilize with human assistance; activity did not occur.” The reported assessment period for these items is 7 days.

Fall history, Fall Since Admission, and Injury

The new MDS fall items obtain different information for admission assessments than for follow-up assessments. The admission assessment includes items asking about pre-admission fall history and fall-related fracture to identify residents at high risk in the immediate period following admission. All assessments ask about the number and outcome of falls since prior assessment (or admission if first assessment). Injury outcomes are coded as “no injury; injury (except major); major injury.” The assessment item provides guidance on type of injury directly on the form and in the instructions. Major injury includes “bone fractures, joint dislocations, closed head injury with altered consciousness, subdural hematoma.” Responses are limited to 0, 1, 2 or more because more than two falls captures a high risk population for whom intervention may reduce the risk of recurrent falls.43

Bladder and Bowel

Urinary Contingency

In a change from MDS 2.0, the MDS 3.0 definition of continence excludes catheters which are now accounted for in a separate response “not rated, resident has a catheter (indwelling, condom), urinary ostomy or no urine output.” In addition, to simplify coding, the MDS 3.0 decreased the number of severity levels to “always continent; occasionally incontinent; frequently incontinent; always incontinent,” with definitions for each.

Urinary Toileting Program

The MDS 2.0 toileting program combined urinary and fecal (bowel and/or bladder) and defined a toileting plan as having scheduled times. MDS 3.0 separates bladder from bowel programs because toileting programs for these conditions have differing levels of evidence and potentially different protocols. MDS 3.0 also establishes a series of questions that reflects an individualized approach to urinary toileting program that is based on clinical trials.44 The first item asks if a trial of a program (scheduled toileting, prompted voiding, or bladder training) has been attempted since admission or onset of incontinence. If yes, then the next question asks about response to the toileting program and a final question asks if a toileting program is currently being used. This sequence allows quality assessment to recognize that a urinary toileting program is not required if it was tried and did not help the resident’s continence. The initial question about a trial is answered regardless of current continence status because some residents become continent with a toileting program.

Active Diagnoses in the Last 7 Days

Diagnosis labels were updated and clarifications were added to form. The diagnoses reported in this section require a physician-documented diagnosis (or by a nurse practitioner, physician assistant, or clinical nurse specialist if allowable under state licensure laws). MDS 3.0 recognizes that the frequency and content of physician notes vary based on resident needs and allows documentation in the last 60 days. The determination of whether the diagnosis is “active” (ie, “have a direct relationship to the resident’s functional status, cognitive status, mood or behavior, medical treatments, nursing monitoring, or risk of death”) must be based on the preceding 7 days of care in the facility. The one exception is urinary tract infection which considers active in the prior 30 days. Of importance for assessing bladder management, a new genitourinary sub-header includes items for benign prostatic hypertrophy, neurogenic bladder, and obstructive uropathy.

Pain Management

Prior to reporting the residents pain, this new pain subsection asks whether, for the past 5 days, the resident has been on a scheduled pain medication regimen, received PRN pain medications, and received non-medication intervention for pain. The definitions for
these new items, included in the instruction section, were developed through review of the literature, content expert input and workgroup discussion.

**Prognosis**

The item wording has been changed from "end-stage disease, 6 months or fewer to live" to "does the resident have a condition or chronic disease that may result in a life expectancy of less than 6 months?" Physician (or nurse practitioner, physician assistant, or clinical nurse specialist if allowable under state licensure laws) documentation continues to be required.

**Skin Conditions**

**Pressure Ulcer Staging**

This section underwent significant change from MDS 2.0. MDS 2.0 asked the assessor to stage all ulcers (pressure and stasis) and provide a count at each stage (I–IV); MDS 3.0 asks for count of pressure ulcers (PU) at each stage (I–IV). This means that facilities are no longer asked to apply PU stages to stasis ulcers. National Pressure Ulcer Advisory Panel definitions as of January 2008 for PU stages II–IV are included on the form. A definition for stage I that describes appearance in different skin hues is also included. In addition, MDS 2.0 allowed "reverse" or "back" staging, a practice of changing the stage of an ulcer to a lower number as it re-epithelializes. Consistent with advances in understanding of wound closure, we changed to instructing providers to code the PU's stage based on its deepest anatomical level. At the request of National Pressure Ulcer Advisory Panel, the unstageable category for PU is divided into reasons the ulcer cannot be staged, including an item for deep tissue injury (DTI). These items continue to be reported for the preceding 7 days.

We introduced several changes in this section that are meant to allow better tracking of PU's over time. An important advance is reporting of the number of PUs at each stage that were present at admission. A separate question in this section asks the assessor to identify the stages III or IV PU with the largest surface area (length X width) and provide dimensions (length, width and depth) for that PU. One item asks the assessor to report the number of healed PUs at each stage since last assessment and another asks for the number that are new or were at a lesser stage since the last assessment.

**Treatments/Procedures and Programs**

Although regrouped for clarity, few items were deleted or added in these sections because of their relationship to resource utilization groups. The most notable change is reporting whether each intervention received in the last 14 days was given while NOT a resident and/or while a resident in the facility. New items capture use of isolation or quarantine for active infectious disease (does not include end-stage disease, standard/body precautions) and BIPAP/CPAP.

**Medications**

The medication section now identifies whether the resident received anticoagulants in the prior 7 days. An item asking to report the number of different medications has been eliminated.

**Nutrition Items**

This MDS 3.0 section continues to address the same elements as MDS 2.0; however, several changes were made to improve item reliability and performance. A single item asking if the resident has a swallowing problem has been replaced with a checklist that includes observable signs and symptoms of possible swallowing disorder. The change was made to assist staff in observing their residents and to decrease staff confusion about whether the item focused on current signs and symptoms or was intended only to document current diagnosis. For the weight and height items, the rules for rounding fractions were changed to be consistent with standard practice. If the value after the decimal point was 1–4, round down; if it was greater than or equal to 5 then round up. This replaced 2.0 instructions to round all upward, which led to confusion and the item being cited as incorrect when standard rounding was used. These new rounding instructions are included on the form. The MDS 3.0 weight loss item includes a new response option that allows the respondent to note that the resident is on a physician-prescribed weight loss regimen. In a recent change to MDS 3.0, CMS added a similar response option for weight gain.

**Resident’s Overall Expectation for Discharge and Return to Community**

For admission assessments, a discharge expectation item asks the assessor to report “Resident’s Overall Goal Established during the Assessment Process.” Response options include “expects to be discharged to the community; expects to remain in this facility; expects to be discharged to another facility/institution; unknown or uncertain.” This resident expectation item does not include a specific script, but is intended to be based on a discussion.

For some assessments, assessors are instructed to ask the resident: “Do you want to talk to someone about the possibility of returning to the community?” Family or significant other may be asked if the resident is unable to respond. A follow-up item asks the assessor to determine whether the resident (or significant other) wants to be asked about return to community on all assessments or just on comprehensive assessments. Finally, the assessor is asked whether referral has been made to the Local Contact Agency. No staff assessment items are provided as alternatives for the return to community items.

**Notable Demographic and Language Changes**

**Race/Ethnicity**

For persons who use MDS data to understand disparities in care and outcomes, it is important to note that the item reporting race/ethnicity has been changed to align with the Office of Management and Budget (OMB) standards for reporting. Assessors are instructed to obtain information from resident/family report rather than based on the assessor’s observation of skin tone and language. Instead of requiring the selection of a single group, assessors are instructed to check all that apply.

**Language**

Assessors are instructed to base the MDS 3.0 language item on the resident’s response to being asked if they need or want an interpreter to communicate with a doctor or healthcare staff. This aligns the language item with NCQA standards for translation.

**Form length**

The MDS 3.0 form has more pages than the MDS 2.0. This reflects the change in item format tested in the national test of MDS 3.0. (see related article Saliba, Buchanan) These changes include: larger font, logical breaks, inclusion of more instructions and definitions on the form, and the inclusion of formatted interviews and alternate staff assessment items on the same form. These changes were made to facilitate data collection. Feedback from the staff who used it in the national test was positive and many reported that it contributed to
their ability to complete the trial form more quickly. When reformatted to MDS 2.0 font size, split page approach and limited definitions, the number of pages in the trial form was the same.

Discussion

The MDS 3.0 includes significant changes across many of its sections. Many of these changes offer the opportunity to improve resident assessment and better inform care planning. The new resident interview items for cognition, mood, pain, and preferences have been tested for feasibility when administered by NH staff members to NH residents. These standardized interviews give providers a common basis for assessment across facilities and offer an opportunity to decrease differences in detection, known as detection bias, across facilities. This represents a departure from MDS 2.0 where assessors were instructed, for all resident assessments, to speak with the resident, review the medical record, observe behaviors, and interview different providers across all shifts. Experience showed that this was not a commonly applied approach.

Alternative staff assessment items, using these multiple data sources, are available for the interview items. MDS 3.0 instructs assessors to use these staff items only if the resident is unable to make him/herself understood or is unable or unwilling to complete the interview. Responses and observed behaviors during attempted, but incomplete interviews can provide useful insights for the assessor when completing these staff assessments.

MDS 3.0 includes other clinically significant changes that aim to improve the clinical validity, reliability, and usefulness of the assessment. The delirium assessment is based on the CAM. The behavior items have been reorganized for clarity and to focus on the impact of the behavior rather than its reversibility. Determination of the rejection of care includes consideration of the resident’s goals. Balance items are now focused on transitions and walking and the fall assessment now asks about the type of injury that occurred. Among the significant changes to bladder and bowel items, catheter is no longer rated as continent, incontinence coding has been simplified and response to prior toileting trials is documented. Changes to the pressure ulcer section aim to align MDS with accepted care standards for PU assessment and document whether a PU was present on admission.

One instrument, in isolation, cannot change care quality and resident outcomes. Members of the interdisciplinary team need to be engaged in ensuring the accuracy of the assessment and in integrating assessment findings into careful follow-up evaluations and care plans. The Resident Assessment Instrument (RAI), of which the MDS is one part, has replaced prior specified Resident Assessment Protocols (RAPs) intended to follow-up specific MDS findings with Care Area Assessments (CAAs) that give facilities more latitude in how they follow-up and care plan for specific MDS findings. Medical Directors and other members of the interdisciplinary team should work together to develop facility protocols for following up on assessment findings.

Interviews hold the promise for improving assessments, and only a limited number of facilities were using longer structured cognitive and mood assessments prior to the implementation of MDS 3.0. More facilities were using a pain scale with some residents. The national evaluation (see related article Saliba, Buchanan) found that many NH staff members are initially reluctant to conduct interviews; however, the reluctance resolved with training and use of the interviews. Now that all facilities are expected to interview their residents, facility staff will need to be supported in gaining the confidence and skills to complete structured interviews with their residents. This skill set should include conducting the interview in a quiet, private setting and assessing each resident’s ability to hear. The latter is particularly important given the finding in the national study that staff used study-supplied external hearing assistive devices (in addition to normal hearing devices if available) to improve communication with 10% of those scheduled for MDS assessment. These skills are explained in the instruction manual and are also explained and modeled in the Video on Interviewing Vulnerable Elders (VIVE). VIVE is publicly available for use in training.

An additional challenge in roll-out and implementation of a mandated assessment instrument is striking an appropriate balance between providing instructions and forms that support standardization while at the same time encouraging critical clinical thinking in coding the items. Some prefer having all possible exceptions and variations expressly addressed in the manual, while others prefer an approach that provides essential information while limiting the volume of special instructions for exceptions and special populations. This tension is exacerbated by the desire to make the MDS clinically relevant and useful at the same time that MDS is sometimes a focus of audit activities and it serves as the foundation for payment and quality measures. This tension will continue to manifest itself as CMS receives questions from assessors.

Limitations

Although assessment is an important clinical skill, assessment of many of the geriatric syndromes included in MDS is not consistently taught across disciplines. In addition, MDS has submission requirements (timing, frequency) and rules for coding administrative items that require training support for assessors. Prior to the implementation of MDS 3.0, CMS sponsored national trainings on MDS and posted instructions and training materials on its website. These are publicly available on the CMS website. Providers and facilities should ensure that new assessors have access to training. Adherence to assessment protocols will need to be monitored.

The facilities that participated in the national study may not be typical NGS, and it is possible that time estimates based on this volunteer sample of well-trained facilities might differ from the actual experience of NHs with the revised MDS 3.0 assessment. In addition, the quality of assessments at the facility level may still vary if assessors deviate from instructions or convey reluctance during the interviews.

Conclusions

MDS 3.0 represents an opportunity to improve resident assessment and provide information for more individualized care plans. MDS 3.0 introduces structured, tested resident interviews along with significant changes across multiple clinical assessment items. These changes could improve assessment reliability and accuracy and provide an improved foundation for care planning. Many of the items and related assessment skills are potentially salient for ongoing clinical assessments and care planning apart from MDS requirements.

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Supplementary Data

Supplementary data related to this article can be found online at http://dx.doi.org/10.1016/j.jamda.2012.06.001

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