

CH.	Sect.	Pg.	January 2006 Revision
NA	NA	Title Page	Revised date changed
CH 3	T3a	3-223	<p>Intent: Records the RUG-III Classification calculated from the facility software.</p> <p>a. Medicare The software calculated RUG-III Classification for the Medicare program using the 53 Group Version 5.2. The first three characters entered in the boxes represent one of the 53 RUG-III groups. The last two numbers are an indicator of the version of the RUG-III Classification system. Currently, this version is 09. This 09 comes directly from the software and will appear on every assessment.</p>

	Appendix	Page	January 2006 Revision
	C	3	Under I3, Dehydration diagnosis, Code: 276.5 add 276.50, 276.51, 276.52
		68-73	Change header on RAP #13 to Appendix C [13. Feeding Tubes]
		74	Move line 14. RESIDENT ASSESSMENT PROTOCOL: from page C-73 to C-74
		75	Under Triggers, 4 th bullet, Dehydration Diagnosis [I3 = 276.5] add 276.50, 276.51, 276.52

**Centers For Medicare &
Medicaid Services**



**Revised
Long-Term Care
Facility Resident
Assessment
Instrument
User's Manual**

Version 2.0

December 2002

January 2006

T3. Case Mix Group

Intent: Records the RUG-III Classification calculated from the facility software.

a. **Medicare**

The software calculated RUG-III Classification for the Medicare program using the 53 Group Version 5.2. The first three characters entered in the boxes represent one of the 53 RUG-III groups. The last two numbers are an indicator of the version of the RUG-III Classification system. Currently, this version is **09**. This **09** comes directly from the software and will appear on every assessment.

b. **State**

The software calculated RUG-III Classification for the State case mix field using the State-specified RUG-III Classification system. For states using the RUG-III Classification system for case mix reimbursement, this item may be required. States have the option of using either the 34 or 44 RUG-III Classification systems, or a different version of the RUG-III Classification system. The first three characters entered in the boxes represent one of the RUG-III groups. This could vary from the Medicare case mix field if the state is using the 34 RUG-III Classification system. The last two numbers may vary depending on the version of the RUG-III Classification system specified in the state. Please contact your State representatives for your State requirements.

SECTION U. MEDICATIONS (7-day look back)

PLEASE NOTE: This section is not required by CMS. Some states have required completion of Section U. Please contact your State RAI Coordinator for State-specific instructions.

Nursing facility residents are highly susceptible to adverse drug reactions and drug interactions. Polypharmacy is the use of two or more medications for no apparent reasons or for the same purpose. Polypharmacy also occurs when a medication is used to treat an adverse reaction from another medication. Polypharmacy can occur in nursing facilities when there is no regular and careful monitoring of residents' prescribed medications.

Intent: This section will assist staff in identifying potential problems related to polypharmacy, drug reactions and interactions. Further, this section can also help staff to identify potential physical and emotional problems a resident may be experiencing. For example, reviewing and documenting the frequency a resident uses a PRN pain medication, sleeping medication, or laxative may lead the interdisciplinary team to do further assessment related to underlying causes associated with the use of PRN medications. Many of the RAPs and Triggers refer to assessment of medications in which this section would be very helpful.

This page revised—January 2006, December 2005

RESIDENT ASSESSMENT PROTOCOL TRIGGER LEGEND FOR REVISED RAPs (for MDS Version 2.0)

Key:			Delirium	Cognitive Loss/Dementia	Visual Function	Communication	ADL-Rehabilitation Trigger A ①	ADL-Maintenance Trigger B ②	Urinary Continence and Involving Catheter	Psychosocial Well-Being	Mood State	Behavioral Symptoms	Activities Trigger A	Activities Trigger B	Falls	Nutritional Status	Feeding Tubes	Dehydration/Fluid Maintenance	Dental Care	Pressure Ulcers	Psychotropic Drug Use	Physical Restraints
MDS ITEM	CODE																					
B2a	Short-term memory	1	●																			B2a
B2b	Long-term memory	1	●																			B2b
B4	Decision-making	1,2,3	●																			B4
B4	Decision-making	3					●															B4
B5a-B5f	Indicators of Delirium	2	●																	●		B5a-B5f
B6	Change in Cognitive Status	2	●																	●		B6
C1	Hearing	1,2,3			●																	C1
C4	Understood by others	1,2,3			●																	C4
C6	Understand others	1,2,3	●		●																	C6
C7	Change in communication	2																		●		C7
D1	Vision	1,2,3		●																		D1
D2a	Side vision problem	✓		●																		D2a
E1a-E1p	Indicators of depression, anxiety, sad mood	1,2							●													E1a-E1p
E1n	Repetitive movement	1,2																		●		E1n
E1o	Withdrawal from activities	1,2						●														E1o
E2	Mood persistence	1,2							●													E2
E3	Change in mood	2	●																	●		E3
E4aA	Wandering	1,2,3											●									E4aA
E4aA-E4eA	Behavioral symptoms	1,2,3									●											E4aA-E4eA
E5	Change in behavioral symptoms	1									●											E5
E5	Change in behavioral symptoms	2	●																	●		E5
F1d	Establishes own goals	✓							●													F1d
F2a-F2d	Unsettled relationships	✓							●													F2a-F2d
F3a	Strong ID, past roles	✓							●													F3a
F3b	Lost roles	✓							●													F3b
F3c	Daily routine different	✓							●													F3c
G1aA-G1jA	ADL self-performance	1,2,3,4				●																G1aA-G1jA
G1aA	Bed mobility	2,3,4,8																●				G1aA
G2A	Bathing	1,2,3,4				●																G2A
G3b	Balance while sitting	1,2,3																		●		G3b
G6a	Bedfast	✓																	●			G6a
G8a,b	Resident, staff believe capable	✓				●																G8a,b
H1a	Bowel incontinence	1,2,3,4																	●			H1a
H1b	Bladder incontinence	2,3,4						●														H1b
H2b	Constipation	✓																		●		H2b
H2d	Fecal impaction	✓																		●		H2d
H3c,d,e	Catheter use	✓						●														H3c,d,e
H3g	Use of pads/briefs	✓						●														H3g
I1i	Hypotension	✓																		●		I1i
I1j	Peripheral vascular disease	✓																	●			I1j
I1ee	Depression	✓																		●		I1ee
I1jj	Cataracts	✓		●																		I1jj
I1ll	Glaucoma	✓		●																		I1ll
I2j	UTI	✓														●						I2j
I3	Dehydration diagnosis	276.5 276.50 276.51 276.52															●					I3
J1a	Weight fluctuation	✓															●					J1a
J1c	Dehydrated	✓															●					J1c
J1d	Insufficient fluid	✓															●					J1d
J1f	Dizziness	✓											●							●		J1f
J1h	Fever	✓															●					J1h
J1i	Hallucinations	✓																		●		J1i
J1j	Internal bleeding	✓															●					J1j
J1k	Lung aspirations	✓																		●		J1k

13. RESIDENT ASSESSMENT PROTOCOL: FEEDING TUBES

I. PROBLEM

The efficacy of tube feedings is difficult to assess. When the complications and problems are known to be high and the benefits difficult to determine, the efficacy of tube feedings as a long-term treatment for individuals requires careful evaluation.

Where residents have difficulty eating and staff have limited time to assist them, insertion of feeding tubes for the convenience of nursing staff is an unacceptable rationale for use. The only rationale for such feedings is demonstrated medical need to prevent malnutrition or dehydration. Even here, all possible alternatives should be explored prior to using such an approach for long-term feeding, and restoration to normal feeding should remain the goal throughout the treatment program.

Use of nasogastric and nasointestinal tubes can result in many complications including, but not limited to: agitation, self-extubation (removal of the tube by the patient), infections, aspiration, unintended misplacement of the tube in the trachea or lungs, inadvertent dislodgment, and pain.

This RAP focuses on reviewing the status of the resident using tubes. The Nutritional Status and Dehydration/Fluid Maintenance RAPs focus on resident needs that may warrant the use of tubes. To help clarify the latter issue, the following guidelines indicate the type of review process required to ensure that tubes are used in only the exceptional and acceptable situation. As a general rule, residents unable to swallow or eat food and unlikely to eat within a few days due to physical problems in chewing or swallowing (e.g., stroke or Parkinson's disease) or mental problems (e.g., Alzheimer's depression) should be assessed regarding the need for a nasogastric or nasointestinal tube or an alternative feeding method. In addition, if normal caloric intake is substantially impaired with endotracheal tubes or a tracheostomy, a nasogastric or nasointestinal tube may be necessary. Finally, tubes may be used to prevent meal-induced hypoxemia (insufficient oxygen to blood), which occurs with patients with COPD or other pulmonary problems that interfere with eating (e.g., use of oxygen, bronchodilators, tracheostomy, endotracheal tube with ventilator support).

1. Assess causes of poor nutritional status that may be identified and corrected as a first step in determining whether or not a nasogastric tube is necessary (see Nutritional Status RAP).
 - (a) Eating, swallowing and chewing disorders can negatively affect nutritional status (low weight in relation to height, weight loss, serum albumin level, and dietary problems) and the initial task is to determine the potential causes and period of time such problems are expected to persist. Recent lab work should also be reviewed to determine if there are electrolyte imbalances, fluid volume imbalances, BUN, creatinine, low serum albumin, and low serum protein levels before treatment decisions are made. Laboratory measurement of sodium and potassium tell whether or not an electrolyte imbalance exists. Residents taking diuretics may have potassium losses requiring potassium supplements. If these types of imbalances cannot be

corrected with oral nutrition and fluids or intravenous feedings, then a nasogastric or nasointestinal tube may be considered.

- (b) Determine whether fluid intake and hydration problems are short term or long term.
 - (c) Review for gastrointestinal distention, gastrointestinal hemorrhage, increased gastric acidity, potential for stress ulcers, and abdominal pain.
 - (d) Identify pulmonary problems (e.g., COPD and use of endotracheal tubes, tracheostomy, and other devices) that interfere with eating or dehydration.
 - (e) Review for mental status problems that interfere with eating such as depression, agitation, delirium, dementia, and mood disorders.
 - (f) Review for other problems such as cardiovascular disease or stroke.
2. Determine the need for such a tube. Examine alternatives.

Alternatives to nasogastric and nasointestinal tubes should always be considered. Intravenous feedings should be used for short-term therapy as a treatment of choice or at least a first option. Jejunostomy may have some advantages for long-term therapy, although may increase the risk for infection. A gastrostomy is better tolerated by agitated patients and those requiring prolonged therapy (more than 2 weeks). Gastrostomy with bolus feedings is preferable to nasogastric or nasointestinal tubes for long-term therapy for comfort reasons and to prevent the dislodgement and complications associated with nasal tubes. It is also less disfiguring as it can be completely hidden under clothing when not in use.

3. Assure informed consent and right to refuse treatment. Informed consent is essential before inserting a nasogastric or nasointestinal tube. Potential advantages, disadvantages, and potential complications need to be discussed. Resident preferences are normally given the greatest weight in decisions regarding tube feeding. State laws and judicial decisions must also be taken into account. If the resident is not competent to make the decision, a durable power of attorney or living will may determine who has the legal power to act on the resident's behalf. Where the resident is not competent or no power of attorney is in effect, the physician may have the responsibility for making a decision regarding the use of tube feeding. In any case, when illness is terminal and/or irreversible, technical means of providing fluids and nutrition can represent extraordinary rather than ordinary means of prolonging life.
4. Monitor for complications and correct/change procedures and feedings when necessary. Periodic changing of the nasogastric and intestinal tubes is necessary, although the appropriate interval for changing tubes is not clear. Assessment and determination of continued need should be completed before the tube is reinserted. Specific written orders by the physician are required.

5. Determine if the assessment for the resident's needs (calories, protein, and fluid) is met by the physician's enteral order (formula and flush). Determine if the actual formula and flush delivered is the same as ordered. Determine if there is a safe and sanitary handling of the feeding tube.

Individuals at risk of pulmonary aspiration (such as those with altered pharyngeal reflexes or unconsciousness) should be given a nasointestinal tube rather than a nasogastric tube, or other medical alternative. Those at risk for displacement of a nasogastric tube, such as those with coughing, vomiting, or endotracheally intubated, should also be given a nasointestinal tube rather than a nasogastric tube or other medical alternative.

II. TRIGGER

Consider efficacy and need for feeding tubes if:

- Feeding Tube Present*
[K5b = checked]

* **Note:** This item also triggers on the Dehydration RAP.

III. GUIDELINES

COMPLICATIONS OF TUBE FEEDING

To reiterate, serious potential negative consequences include agitation, depression, mood disorders, self-extubation (removal of the tube by the patient), infections, aspirations, misplacement of tube in trachea or lung, pain, and tube dysfunction. Abnormal lab values can be expected and should be reviewed.

Infection in the Trachea or Lungs

Gastric organisms grow as a result of alkalizing (raising) the gastric pH. Gastric colonization results in transmission of gastric organisms to the trachea and the development of nosocomial pneumonia. In one study, colonization in 89% of patients within 4 days in ventilated patients with enteral nutrition was found with nosocomial respiratory infection in 62% of the patients studied. Symptoms of respiratory infections to be monitored include coughing, shortness of breath, fever, chest pain, respiratory arrest, delirium, confusion, and seizures.

Aspiration of Gastric Organisms into the Trachea and the Lungs

The incidence is difficult to determine, but most studies suggest it is relatively high.

Inadvertent Respiratory Placement of the Tube

This is the most common side effect of tube placement. In one study, 15% of small-bore nasogastric tubes and 27-50% of nasointestinal tubes were found to be out of their intended position upon radiographic examination without any other evidence of displacement.

Respiratory placement can occur in any patient, but is most likely in those who are neurologically depressed, heavily sedated, unable to gag, or endotracheally intubated. Detecting such placement is difficult; the following comments address this issue:

- Radiologic detection is the most definitive means to detect tube displacement. Under this procedure, pneumothorax and inadvertent placement in the respiratory tract can be avoided by first placing the feeding tube in the esophagus with the tip above the xiphoid process and then securing the tube and confirming placement with a chest x-ray. Then the tube may be advanced into the stomach and another x-ray taken to confirm the position. The stylet can then be removed and tube feeding begun. Unfortunately, nursing facilities are highly unlikely to have appropriate radiological technology and it is normally unreasonable to expect them to make arrangements to have patients transported to available radiology.
- pH testing of gastric aspirates to determine whether a tube is in the gastric, intestine, or the respiratory area is a promising method for testing feeding tube placement. However, parameters for various secretions from the three areas have not yet been clinically defined.
- Aspiration of visually recognizable gastrointestinal secretions, although a frequently used method of determining placement of tubes, is of questionable value as the visual characteristics of secretions can be similar to those from the respiratory tract.
- Auscultatory method: although “shooshing” or gurgling sounds can indicate placement in the stomach, the same sounds can occur when feeding tubes are inadvertently placed in the pharynx, esophagus and respiratory tract. Although small-bore tubes make the auscultatory method more difficult to use, large-bore nasogastric tubes may also be placed inadvertently in the respiratory tract producing false gurgling.

Inadvertent Dislodgement of the Tubes

Nonweighted tubes appear to be more likely to be displaced than weighted tubes (with an attached bolus of mercury or tungsten at the tip).

Other Complications Include:

Pain, epistaxis, pneumothorax, hydrothorax, nasal alar necrosis, nasopharyngitis, esophagitis, eustachitis, esophageal strictures, airway obstruction, pharyngeal and esophageal perforations. Symptoms of respiratory infections are to be reviewed.

Complications of Gastric Tract Infections and Gastric Problems

Symptoms include abdominal pain, abdominal distention, stress ulcers, and gastric hemorrhage. There is also a need to monitor for complications including diarrhea, nausea, abdominal distention, and asphyxia. Such complications signal the need for a change in the type of formula or diagnostic work for other pathology.

Complications for the Cardiovascular Systems

Symptoms of cardiac distress or arrest to be monitored include chest pain, loss of heartbeat, loss of consciousness, and loss of breathing.

Periodic Tests to Assure Positive Nitrogen Balance During Enteral Feeding

Where positive balance is not achieved, a formula with high nitrogen density is needed. The absorptive capacity is impaired in many elderly patients so that serum fat and protein should be monitored. Effective nutrients should result in positive nitrogen balance, maintenance or increases in body weight, triceps skinfold and midarm muscle circumference maintenance, total iron binding capacity maintenance, and serum urea nitrogen level maintenance. Caloric intake and resident weight should be monitored on a regular basis.

13. FEEDING TUBES STATUS RAP KEY*(For MDS Version 2.0)*

TRIGGER – REVISION	GUIDELINES
<i>Consider efficacy and need for feeding tubes if:</i>	<i>Factors that may impede removal of tube:</i>
<ul style="list-style-type: none"> • Feeding Tube Present* [K5b = checked] 	<ul style="list-style-type: none"> • Comatose [B1] • Failure to Eat [K4c] AND Resists Assistance in Eating [E4e] • Diagnoses: CVA [I1t], Gastric Ulcers [I3] • Gastric Bleeding [from record] • Chewing Problem [K1a] • Swallowing Problem [K1b] • Mouth Pain [K1c] • Length of Time Feeding Tube Has Been in Use [from record]
	<i>Potential complications of tube feeding:</i>
	<ul style="list-style-type: none"> • Diagnostic Conditions: Delirium [B5], Repetitive Physical Movements [E1n], Anxiety [I1dd], Depression [I1ee], Recurrent Lung Aspirations [J1k] • Self-Extubation (removal of tube by resident) [from record] • Limb Restraints in Use to Prevent Self-Extubation [P4d] • Infections in Lung/Trachea: Pneumonia [I2e], Fever [J1h], Shortness of Breath [J1i], Placement or Dislodgement of Tube in to Lung [from exam, record] • Side-Effects of Enteral Feeding Solutions: Constipation [H2b], Diarrhea [H2c], Fecal Impaction [H2d], Abdominal Distention or Pain [exam], Dehydrated [J1c] • Respiratory Problems: Pneumothorax, Hydrothorax, Airway Obstruction, Acute Respiratory Distress, Respiratory Distress [I3; from observation, record] • Cardiac Distress/Arrest: Chest Pain [J3c], Loss of Heart Beat, Loss of Consciousness, Loss of Breathing [from observation, record] • Abnormal Lab Values [P9]

* **Note:** This item also triggers on the Dehydration RAP.

14. RESIDENT ASSESSMENT PROTOCOL: DEHYDRATION/FLUID MAINTENANCE

I. PROBLEM

Water is necessary for the distribution of nutrients to cells, elimination of waste, regulation of body temperature, and countless other complex processes. On average, one can live only four days without water. Dehydration is a condition in which water or fluid loss (output) far exceeds fluid intake. The body becomes less able to maintain adequate blood pressure, deliver sufficient oxygen and nutrients to the cells, and rid itself of wastes. Many distressing symptoms can originate from these conditions, including:

- **Dizziness on Sitting/Standing** (blood pressure insufficient to supply oxygen and glucose to brain);
- **Confusion or Change in Mental Status** (decreased oxygen and glucose to brain);
- **Decreased Urine Output** (kidneys conserve water);
- **Decreased Skin Turgor**, dry mucous membranes (symptoms of dryness);
- **Constipation** (water insufficient to rid body of wastes); and
- **Fever** (water insufficient to maintain normal temperature).

Other possible consequences of dehydration include: decreased functional ability, predisposition to falls (because of orthostatic hypotension), fecal impaction, predisposition to infection, fluid and electrolyte disturbances, and ultimately death.

Nursing facility residents are particularly vulnerable to dehydration. It is often difficult or impossible to access fluids independently; the perception of thirst can be muted; the aged kidney can have a decreased ability to concentrate urine; and acute and chronic illness can alter fluid and electrolyte balance.

Unfortunately, many symptoms of this condition do not appear until significant fluid has been lost. Early signs and symptoms tend to be unreliable and nonspecific; staff will often disagree about the clinical indicators of dehydration for specific cases; and the identification of the most crucial symptoms of the condition are most difficult to identify among the aged. Early identification of dehydration is thus problematic, and the goal of this RAP is to identify any and all possible high-risk cases, permitting the introduction of programs to prevent the condition from occurring.

When dehydration is in fact observed, treatment objectives focus on restoring normal fluid volume, preferably orally. If the resident cannot drink a minimum recommended 1500 cc's of fluid every 24 hours, water and electrolyte deficits can be made up in a timely fashion via other routes to prevent dehydration. Fluids can be administered intravenously, subcutaneously, or by tube until resident is adequately hydrated and can take and retain sufficient fluids orally.

II. TRIGGERS

Dehydration suggested if one or more of following present:

- Dehydration
[J1c = checked]
- Insufficient Fluid/Did Not Consume All Liquids Provided
[J1d = checked]
- UTI
[I2j = checked]
- Dehydration Diagnosis
[I3 = 276.5, 276.50, 276.51, 276.52]
- Weight Fluctuation of 3+ Pounds
[J1a = checked]
- Fever
[J1h = checked]
- Internal Bleeding
[J1j = checked]
- Parenteral/IV^(a)
[K5a = checked]
- Feeding Tube^(b)
[K5b = checked]
- Taking Diuretic
[O4e = 1-7]

^(a) **Note:** This item also triggers on the Nutritional Status RAP.

^(b) **Note:** This item also triggers on the Feeding Tube RAP.

III. GUIDELINES

RESIDENTS FACTORS THAT MAY IMPEDE ABILITY TO MAINTAIN FLUID BALANCE

Moderate/Severely Impaired Decision-Making Ability

- Has there been a recent unexplainable change in mental status?
- Does resident seem unusually agitated or disoriented?
- Is resident delirious?
- Is resident comatose?
- Does dementia, aphasia or other condition seriously limit resident's understanding of others, or how well others can understand the resident?

Comprehension/Communication Problems