

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 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.

Feeding Tubes RAP (1 of 5)

- (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 preference 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.

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 lungs, 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 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 homes 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 heart beat, 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.

FEEDING TUBES STATUS RAP KEY (For MDS Version 2.0)

TRIGGER

GUIDELINES

Consider efficacy and need for feeding tubes if:

- Feeding Tube present *
[K5b = checked]

Factors that may impede removal of tube:

- 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]

Potential complications of tube feeding:

- 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 into 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

RESIDENT ASSESSMENT PROTOCOL: DEHYDRATION/FLUID MAINTENANCE**I. PROBLEM**

On average, one can live only four days without water. Water is necessary for the distribution of nutrients to cells, elimination of wastes, regulation of body temperature, and countless other complex processes.

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 home 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 between 2500-3000 cc's every 24 hours, water and electrolyte deficits can be made up via other routes. 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]

Dehydration/Fluid Maintenance RAP (1 of 4)

- UTI
 [I2j = checked]
- Dehydration diagnosis
 [I3 = 276.5]
- 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?

Comprehension/Communication problems.

- Does dementia, aphasia or other condition seriously limit resident's understanding of others, or how well others can understand the resident?

Body control problems.

- Does resident require extensive assistance to transfer?
- Does resident freely move on the unit?
- Has there been recent ADL decline?

Hand dexterity problem.

- Can resident grasp cup?

Bowel problems.

- Does the resident have constipation or a fecal impaction that may be interfering with fluid intake?

Dehydration/Fluid Maintenance RAP (2 of 4)

Swallowing problems.

- Does resident have mouth sore(s)/ulcer(s)?
- Does resident refuse food, meals, meds?
- Can resident drink from a cup or suck through a straw?

Use of Parenteral/IV.

Are feeding tubes in use?

RESIDENT DEHYDRATION RISK FACTORS

Dehydration risk factors can be categorized in terms of whether they decrease fluid intake or increase fluid loss. The higher the number of factors, the greater the risk of dehydration. Ongoing fluid loss through the lungs and skin occurs at a normal rate of approximately 500 cc/day and increases with rapid respiratory rate and sweating. Therefore, decreased fluid intake for any reason can lead to dehydration.

Purposeful Restriction of Fluid Intake.

- Has there been a decrease in thirst perception?
- Is resident unaware of the need to intake sufficient fluids?
- Has resident or staff restricted intake to avoid urinary incontinence?
- Are fluids restricted because of diagnostic procedure or other health reason?
- Does sad mood, grief, or depression cause resident to refuse foods/liquids?

Presence of infection, fever, vomiting/diarrhea/nausea, excessive sweating (e.g., a heat wave).

Frequent use of laxatives, enemas, diuretics.

Excessive urine output (polyuria).

Excessive urine output (polyuria) may be due to:

- Drugs (e.g., lithium, phenytoin), alcohol abuse
- Disease (e.g., diabetes mellitus, diabetes insipidus)
- Other conditions (e.g., hypoaldosteronism, hyperparathyroidism)

Other test results.

Relevant test result to be considered:

- Does systolic/diastolic blood pressure drop 20 points on sitting/standing?
- On inspection, do oral mucous membranes appear dry?
- Does urine appear more concentrated and/or decreased in volume?

DEHYDRATION/FLUID MAINTENANCE STATUS RAP KEY *(For MDS Version 2.0)*

TRIGGER — REVISION

Dehydration suggested if one or more of following present:

- Dehydrated
 [J1c = checked]
- Insufficient fluid/did not consume all liquids provided
 [J1d = checked]
- UTI
 [I2j = checked]
- Dehydration diagnosis
 [I3 = 276.5]
- 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]

GUIDELINES

Resident Factors that May Impede Ability to Maintain Fluid Balance:

- Indicators of Delirium [B5]
- Moderate/severely impaired decision-making ability [B4]
- Comprehension/communication problem [C4, C6]
- Body control problems [G3, G4]
- Hand dexterity problem [G4c]
- Constipation [H2b]
- Fecal impaction [H2d]
- Swallowing problem [K1b]
- Recent (within 7 days) deterioration in ADLs [observe, ask Direct Care Staff]

Resident Dehydration Risk Factors:

- Purposeful restriction of fluids [J1d; from record]
- Diarrhea [H2c], Presence of infection [I2], Fever [J1h], Vomiting [J1o], Nausea [from record], Excessive sweating [from record, exam]
- Frequent laxative/enema/diuretic use [from record; H3h, O4e]
- Excessive urine output [from record, exam]
- Other tests: Standing/sitting blood pressure, Status of oral mucous membranes, Urine output volume [from record]

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

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

RESIDENT ASSESSMENT PROTOCOL: DENTAL CARE**I. PROBLEM**

Having teeth/dentures that function properly is an important requisite for nutritional adequacy. Having teeth/dentures that are clean and attractive can promote a resident's positive self-image as well as personal appearance thereby enhancing social interactions among residents, residents and staff, and residents and visitors. Good oral health can decrease a resident's risk of oral discomfort and in some instances, systemic illness from oral infections/cancer. Residents at greatest risk due to impaired abilities are primarily those with multiple medical conditions and medications, functional limitations in self-care, and communication deficits. Also at risk are more self-sufficient residents who lack motivation or have no consistent history of performing oral health functions. Residents with a history of alcohol and/or tobacco use have a greater risk of developing chronic oral lesions.

II. TRIGGERS

Dental Care or Oral Health problem suggested if:

- Mouth Debris (*Dental Care*)
[L1a = checked]
- Less Than Daily Cleaning of Teeth/Dentures (*Dental Care*)
[L1f = not checked]

- Mouth Pain (*Oral Health*)
[K1c = checked]
- Some/All natural teeth lost and does not have or does not use dentures (*Oral Health*)
[L1c = checked]
- Broken, Loose or Carious Teeth (*Oral Health*)
[L1d = checked]
- Inflamed Gums, Oral Abscesses, Swollen/Bleeding Gums, Ulcers, Rashes (*Oral Health*)
[L1e = checked]

III. GUIDELINES**CONFOUNDING PROBLEMS**

Debris on teeth, gums, and oral tissues may consist of food and bacteria-laden plaque that can begin to decay teeth or cause foul denture odors if not removed at least once daily. The purpose of this section is to examine confounding problems (from the MDS) which may be prohibiting a resident from adequately removing oral debris.

Impaired cognitive skills.

- Does the resident need reminders to clean his/her teeth/dentures?
- Does he remember the steps necessary to complete oral hygiene?
- Would he benefit from task segmentation or supervision?

Impaired ability to understand:

- Can the resident follow verbal directions or demonstrations for mouth care?
- If the resident has language difficulties, does he/she know what to do when handed a toothbrush/toothpaste and placed at the bathroom sink?

Impaired vision.

- Is resident's vision adequate for performing mouth care or checking its adequacy? –

Impaired personal hygiene.

- Did the resident receive supervision or assistance with oral/dental care during the last 7 days?
- Has he/she been assessed to see if he/she could do it independently?
- Does the resident have partial/total loss of voluntary arm movement or impaired hand dexterity that interferes with self-care?
- What would the resident need to be more independent?

Resists ADL assistance:

- Does the resident resist mouth care? If so, why (e.g., would rather do own care, painful mouth, apathy related to depression, not motivated - never cared for teeth/mouth, approach of staff, fear)?

Motivation/Knowledge of resident who is independent in oral/dental care but still has debris or performs care less than daily.

- Is he/she brushing adequately?
- Does he/she know that it is most important to brush near the gumline?
- Does he/she need to be shown how or be given reinforcement for maintaining good hygiene?

Adaptive equipment for oral hygiene.

- Has the resident tried or would he/she benefit from using a built-up, long-handled, or electric toothbrush, or suction brush for cleaning teeth?
- If resident has dentures, does he/she have denture cleaning devices (e.g., denture brush, soaking bath)?

Dry mouth from dehydration or medications.

- Dry mouth can contribute to the formation of debris. Is the resident's lips, tongue, or mouth dry, sticky, or coated with film?
- Is the resident taking enough fluids? Is lip balm being applied to resident who has painful, cracking or bleeding lips?
- Is he/she taking any medications that can cause dry mouth (e.g., decongestants, antihistamines, diuretics, antihypertensives, antidepressants, antipsychotic, antineoplastics)?
- If these medications are necessary, has the resident tried saliva substitutes to stimulate moisture?

TREATMENT HISTORY AND OTHER RELEVANT FACTORS

Mouth pain or sensitivity can be related to either minor and easily treatable (e.g., gum irritation from ill-fitting dentures, localized periodontal problem) or more serious problems (e.g., oral abscess, cancer, advanced tooth decay or periodontal disease). The presence of pain may prevent the resident from eating adequately.

Residents with cognitive impairment and/or those who have difficulty making their needs known are difficult to assess. They may not complain specifically of mouth pain but may instead have decreased food intake or changes in behavior.

The presence of lesions, ulcers, inflammation, bleeding, swelling, or rashes may be representative of a minor problem (e.g., irritation from wearing dentures for 24 hours/day), which resolves when the cause is alleviated (e.g., combination of mouth care and leaving dentures out.) However, these signs may also indicate more serious problems, even dental emergencies (e.g., infection). If the problem does not resolve with specific local treatment after a couple of days OR if these signs are accompanied by pain, fever, lymphadenopathy (swollen glands) and/or signs of local infection (e.g., redness), chewing or swallowing problems, or changes in mental status or behavior, a dental consult should be considered.

Review mouth for Candidiasis (white areas that appear to be removable anywhere in mouth, (mostly on tongue) for lethargic residents who have one or more of following diagnoses: stroke, Alzheimer's, Parkinson's, anxiety disorder, depression, diabetes, osteoporosis, or septicemia.

Broken, loose, or carious teeth may progress to more severe problems (e.g., dislodging a decayed tooth and swallowing or aspirating it). Although, not emergencies, a dental consult should be considered.

If a resident has lost some or all of his/her natural teeth and does not have dentures (or partial plates) staff should consider if the resident has the cognitive ability and motivation to wear dentures.

- Has a dentist evaluated resident for dentures?
- Why doesn't resident use his/her dentures (or partial plates)?
- Are teeth in good repair?
- Do they fit well?
- Are they comfortable to wear when eating or talking?
- Does the resident like the way he/she looks when wearing them?
- Has a dentist evaluated resident for dentures?
- Has a dental hygienist interviewed and made recommendations regarding oral hygiene care?

Exam by dentist since problem noted. When evaluating a resident with mouth pain or the presence of any of the other trigger signs, check the record to see if a dentist has examined the resident since the problem was first noted.

- Was the current problem addressed?
- What were the recommendations?

Use of anticoagulants.

- Is the resident on coumadin or heparin that would put him/her at risk for bleeding if dental work is necessary?
- Is it noted on the medical record?

Valvular heart disease or prosthesis (e.g., heart valve, false hip, etc.).

- Are either of these conditions present?
- If so are they clearly noted in the medical record so that necessary precautions be taken prior to dental work?

- Has a dentist evaluated resident for dentures?
- Why doesn't resident use his/her dentures (or partial plates)?
- Are teeth in good repair?
- Do they fit well?
- Are they comfortable to wear when eating or talking?
- Does the resident like the way he/she looks when wearing them?
- Has a dentist evaluated resident for dentures?
- Has a dental hygienist interviewed and made recommendations regarding oral hygiene care?

Exam by dentist since problem noted. When evaluating a resident with mouth pain or the presence of any of the other trigger signs, check the record to see if a dentist has examined the resident since the problem was first noted.

- Was the current problem addressed?
- What were the recommendations?

Use of anticoagulants.

- Is the resident on coumadin or heparin that would put him/her at risk for bleeding if dental work is necessary?
- Is it noted on the medical record?

Valvular heart disease or prosthesis (e.g., heart valve, false hip, etc.).

- Are either of these conditions present?
- If so are they clearly noted in the medical record so that necessary precautions be taken prior to dental work?

DENTAL CARE RAP KEY (For MDS Version 2.0)

TRIGGER — REVISION

GUIDELINES

Dental Care or Oral Health problem suggested if one or more of the following present:

- Mouth Debris (*Dental Care*)
 [L1a = checked]
- Less Than Daily Cleaning of Teeth/Dentures (*Dental Care*)
 [L1f = not checked]
- Mouth Pain (*Oral Health*)
 [K1c = checked]
- Some/All natural teeth lost and does not have or does not use dentures (*Oral Health*)
 [L1c = checked]
- Broken, Loose or Carious Teeth (*Oral Health*)
 [L1d = checked]
- Inflamed Gums, Oral Abscesses, Swollen/Bleeding Gums, Ulcers, Rashes (*Oral Health*)
 [L1e = checked]

Confounding problems to be considered:

- Impaired cognitive skills [B1, B4]
- Impaired ability to understand [C1, C6]
- Impaired vision [D1]
- Resists ADL assistance [E4e]
- Impaired personal hygiene [G1j]
- Motivation/knowledge [from observation]
- Adaptive equipment for oral hygiene [from record]
- Dry mouth from dehydration [J1c,d] or from medications [from medication sheet]

Treatment history/relevant factors:

- Mouth pain or sensitivity [K1c]
- Presence of lesions, ulcers, inflammation, bleeding, swelling or rashes [L1e]
- Broken, loose or carious teeth [L1d]
- Natural teeth lost/ no dentures [L1c]
- Exam by dentist/dental hygienist since problem noted [from record]
- Use of anticoagulants [from record]
- Valvular heart disease or valvular appliance [I3]

RESIDENT ASSESSMENT PROTOCOL: PRESSURE ULCERS

I. PROBLEM

Between 3% and 5% (or more) of residents in nursing facilities have pressure ulcers (pressure sores, decubitus ulcers, bedsores). Sixty percent or more of residents will typically be at risk of pressure ulcer development. Pressure ulcers can have serious consequences for the elderly and are costly and time consuming to treat. However, they are one of the most common, preventable and treatable conditions among the elderly who have restricted mobility. Successful outcomes can be expected with preventive and treatment programs.

Assessment goals are: (1) to ensure that a treatment plan is in place for residents with pressure ulcers; and (2) to identify residents at risk for developing a pressure ulcer who are not currently receiving some type of preventive care program.

II. TRIGGERS

Pressure ulcer present or there is a risk for occurrence if one or more of following present:

- Pressure Ulcer(s) Present (*Present*) ^(a)
[M2a = 1,2,3,4]
- Bed mobility problem (*Risk*)
[G1aA = 2,3,4,8] ^(b)
- Bedfast (*Risk*)
[G6a = checked]
- Bowel Incontinence (*Risk*)
[H1a = 1,2,3,4]
- Peripheral Vascular Disease (*Risk*)
[I1j = checked]
- Previous Ulcer (*Risk*)
[M3 = 1]
- Skin desensitized to pain or pressure (*Risk*)
[M4e = checked]
- Daily Trunk Restraint (*Risk*) ^(c)
[P4c = 2]

^(a) Note: Codes 2, 3, and 4 also trigger on the Nutritional Status RAP

^(b) Note: Codes 2, 3, and 4 also trigger on the ADL RAP

^(c) Note: This code also triggers on the Falls RAP and Physical Restraints RAP

III. GUIDELINES

Review the MDS items listed on the RAP KEY for relevance in understanding the type of care that may be required.

Diagnoses, Conditions and Treatments that Present Complications.

Consider carefully whether the resident exhibits conditions or is receiving treatments that may either place the resident at higher risk of developing pressure ulcers or complicate their treatment. Such conditions include:

Diabetes, Alzheimer's Disease and other dementias. An impairment in cognitive ability, particularly in severe end-stage dementia, can lead to immobility.

Edema. The presence of extravascular fluid can impair blood flow. If prolonged or excess pressure is applied to an area with edema, skin breakdown can occur.

Antidepressants and antianxiety/hypnotics. These medications can produce or contribute to lessened mobility, worsen incontinence, and lead to or increase confusion.

Interventions/Programs to Consider if the Resident Develops a New Pressure Ulcer, or an Ulcer Being Treated is not Resolved.

A variety of factors may explain this occurrence; however, they may suggest the need to evaluate current interventions and modifications of the care plan.

- Review the resident's medical condition, medications, and other risk factors to determine whether the care plan (for prevention or cure) addresses all potential causes or complications.
- Review the care plan to determine whether it is actually being followed (e.g., is the resident being turned often enough to prevent ulcer formation).

Things to Consider If The Resident Is At Risk For Pressure Ulcers But Is Not Receiving Preventive Skin Care.

Even if pressure ulcers are not present, determine why this course of prevention is not being provided to a resident with risk factors.

- Is the resident new to the unit?
- Do few or many risk factors for the development of pressure ulcers apply to this resident?
- Are staff concentrating on other problems (e.g., resolution of behavior problems) so that the risks pressure of ulcers are masked?

PRESSURE ULCERS RAP KEY *(For MDS Version 2.0)*

TRIGGER — REVISION

Pressure ulcer present or risk for occurrence if one or more of following present:

- Pressure Ulcer(s) Present (*Present*) ^(a)
[M2a = 1,2,3,4]
- Bed mobility problem (*Risk*)
[G1aA = 2,3,4,8] ^(b)
- Bedfast (*Risk*)
[G6a = checked]
- Bowel Incontinence (*Risk*)
[H1a = 1,2,3,4]
- Peripheral Vascular Disease (*Risk*)
[I1j = checked]
- Previous Ulcer (*Risk*)
[M3 = 1]
- Skin desensitized to pain or pressure (*Risk*)
[M4e = checked]
- Daily Trunk Restraint (*Risk*) ^(c)
[P4c = 2]

GUIDELINES

Other factors that address or may complicate treatment of pressure ulcers or risk of ulcers:

- **Diagnoses or conditions:**

Diabetes [I1a], Alzheimer's disease [I1q], Other dementia [I1u], Hemiplegia/Hemiparesis [I1v], Multiple Sclerosis [I1w], Edema [J1g]
- **Interventions/Programs:**
 - Pressure relieving chair/beds [M5a, M5b]
 - Turning/repositioning [M5c]
 - Nutrition or hydration program to manage skin care problems [M5d] -
 - Ulcer care [M5e]
 - Surgical wound care/treatment [M5f]
 - Application of dressings (with or without topical medications) other than to feet [M5g]
 - Application of ointment/medications (other than to feet) [M5h]
 - Preventative or protective skin care (other than to feet) [M5i]
 - Preventive or protective foot care [M6e]
 - Application of dressings to feet (with or without topical medications) [M6f]
 - Use of restraints [P4c,d,e]
- **Medications:**

Antipsychotics [O4a]
Antianxiety [O4b]
Antidepressants [O4c]
Hypnotics [O4d]

^(a) Note: Codes 2, 3, and 4 also trigger on the Nutritional Status RAP

^(b) Note: Codes 2, 3, and 4 also trigger on the ADL RAP

^(c) Note: This code also triggers on the Falls RAP and Physical Restraints RAP

RESIDENT ASSESSMENT PROTOCOL: PSYCHOTROPIC DRUG USE**I. PROBLEM**

Psychotropic drugs are among the most frequently prescribed agents for elderly nursing home residents. Studies in nursing facilities suggest that 35% to 65% of residents receive psychotropic medications.

When used appropriately and judiciously, these medications can enhance the quality of life of residents who need them. However, all psychotropic drugs have the potential for producing undesirable side effects or aggravating problematic signs and symptoms of existing conditions. An important example is postural hypotension, a condition associated with serious and life-threatening side effects. Severity of delirium side effects is dependent on: the class and dosage of drug, interactions with other drugs, and the age, and health status of the resident.

Maximizing the resident's functional potential and well-being while minimizing the hazards associated with drug side effects are important goals of therapy. In reviewing a psychotropic drug regimen there are several rules of thumb:

- Evaluate the need for the drug (e.g., consider amount and type of distress, response to nonpharmacologic interventions, pros and cons of drug side effects in relation to distress without the drug). Distinguish between treating specific diagnosed psychiatric disorders and treating symptoms. Specific psychiatric disorders (e.g., schizophrenia, major depression) have specific drug treatments with published guidelines for dosage and duration of treatment. However, a recorded diagnosis of a psychiatric disorder does not necessarily require drug treatment if symptoms are inactive.
- Start low, go slow. If needed, psychotropic drugs should be started at lowest dosage possible. To minimize side effects, doses should be increased slowly until either there is a therapeutic effect, side effects emerge, or the maximum recommended dose is reached.
- Each drug has its own set of actions and side effects, some more serious than others; these should be evaluated in terms of each user's medical-status profile, including interaction with other medications.
- Consider symptoms or decline in functional status as a potential side effect of medication.

II. TRIGGERS

TO BE TRIGGERED, RESIDENT MUST FIRST USE A PSYCHOTROPIC DRUG [Antipsychotic, antidepressant, or antianxiety] [O4a,b, or c = 1-7]. If used, go to RAP review if one or more of following present:

Potential for Drug-Related Hypotension or gait disturbances if:

- Repetitive physical movement^(a)
[E1n = 1,2]
- Balance While Sitting
[G3b = 1,2,3]
- Hypotension
[I1i = checked]
- Dizziness/Vertigo^(b)
[J1f = checked]
- Syncope
[J1m = checked]
- Unsteady Gait
[J1n = checked]
- Fell in past 30 days^(b)
[J4a = checked]
- Fell in past 31-180 day^(b)
[J4b = checked]
- Hip fracture
[J4c = checked]
- Swallowing problem
[K1b = checked]

Potential for Drug-Related Cognitive/Behavioral Impairment if: ^(c)

- Delirium/Disordered Thinking
 - Easily distracted
[B5a = 2]
 - Periods of altered perception or awareness of surroundings
[B5b = 2]
 - Episodes of disorganized speech
[B5c = 2]
 - Periods of restlessness
[B5d = 2]
 - Periods of lethargy
[B5e = 2]
 - Mental function varies over the course of the day
[B5f = 2]
- Deterioration in Cognitive Status ^(c)
[B6 = 2]
- Deterioration in Communication
[C7 = 2]
- Deterioration in Mood ^(c)
[E3 = 2]
- Deterioration in Behavioral Symptoms ^(c)
[E5 = 2]

- Depression
 [I1ee = checked]
- Hallucinations
 [J1i = checked]

Potential for Drug Related Discomfort if:

- Constipation
 [H2b = checked]
- Fecal Impaction
 [H2d = checked]
- Lung Aspiration
 [J1k = checked]

- (a) Note: This item also triggers on the Mood RAP
 (b) Note: These items also trigger on Falls RAP
 (c) Note: All of these items also trigger on the Delirium RAP

III. GUIDELINES

If any of the triggered conditions are present complete the following:

Step One.

Conduct the following reviews:

1. Drug review [from record]

- Length of time between when the drug was first taken and onset of problem
- Dose of drug and how frequently taken
- Number of classes of psychotropics taken
- Reason drug prescribed

2. Review resident's conditions that impair drug metabolism/excretion

- Impaired liver/renal function
- Acute condition(s)
- Dehydration

3. Review behavior/mood/psychiatric status

- Current problem status
- Recent changes in mood and behavior
- Behavior management program
- Psychiatric conditions

Step Two.

Compare the drugs the resident is currently taking with common side effects listed below. Refer to Tables A, B, and C for clarification.

POTENTIAL PSYCHOTROPIC DRUG-RELATED SIDE EFFECTS**Clarifying Information if Hypotension present**

Postural (orthostatic) hypotension (decrease in blood pressure upon standing) is one of the major risk factors for falls related to psychotropic drugs. It is commonly seen with the low-potency antipsychotic drugs (chlorpromazine, thioridizene) and with tricyclic antidepressants. Both classes of drugs have anticholinergic properties. Within each class, drugs with the most potent anticholinergic properties also seem to produce the greatest hypotensive effects. Symptoms of dizziness/vertigo upon sitting or standing from a lying position, syncope (fainting), and falls/fractures, should be seriously considered as potential indicators of psychotropic-drug-induced hypotension. In addition, these symptoms may be due to a disturbance of heart rhythm, which could be aggravated by a tricyclic antidepressant. The occurrence of any of the aforementioned symptoms requires assessment of postural vital signs and heart rhythm.

- **Measurement of postural vital signs.** Measure blood pressure and pulse when the resident is lying down. Remeasure blood pressure and pulse after the resident has been on his/her feet for one to five minutes (if unable to stand, measure after the resident has been sitting). Occasionally, further drops in blood pressure occur after the person has been up for some time. While a drop of more than 20 mm Hg systolic is always abnormal, it is particularly significant if accompanied by dizziness, loss of balance, or a standing blood pressure of less than 100 mm Hg. A large drop may be clinically significant even if the lower pressure is not abnormally low, particularly in residents who have some degree of cerebrovascular disease.

Clarifying Information if Movement Disorder Present

High fever AND/OR muscular rigidity. Antipsychotic drugs can interfere with temperature regulation, which can lead to the potentially fatal problem of hyperthermia. Also, when high fever is accompanied by severe muscular rigidity, "neuroleptic malignant" syndrome must be suspected. Fever above 103 degrees in a resident on an antipsychotic drug is a medical emergency because of the disturbed temperature regulation. Even lesser degrees of fever, if accompanied by severe muscular rigidity, are medical emergencies. Temperature must therefore be monitored especially closely in residents on psychotropic drugs with anticholinergic properties. In addition, nonantipsychotic drugs with anticholinergic properties, such as antidepressants, may aggravate fever by impairing sweating.

Parkinson's disease. This condition is known to be aggravated by all antipsychotic drugs. At times, it is difficult to know whether parkinsonian symptoms (e.g., tremors, especially of hands; pill-rolling of hands; muscle rigidity of limbs, necks, trunk) are due to Parkinson's disease or to present or recent antipsychotic drug therapy. There should be a strong bias in favor of reducing or eliminating antipsychotic drugs in residents with Parkinson's disease unless there are compelling behavioral or psychotic indications. Antiparkinson drugs should be considered when antipsychotic drugs are clinically necessary in residents with Parkinson's disease.

Psychotropic Drug Use RAP (4 of 11)

Five movement disorders are commonly encountered in residents on antipsychotic drugs. All of these disturbances can adversely affect a resident's quality of life as well as increase his/her risk of accidents. The triggered MDS items in Group 2 are signs/symptoms of these disorders. To clarify whether the resident is suffering from one of these disorders, all residents on antipsychotic drugs should be periodically screened for the following conditions:

Parkinsonism. As with Parkinson's disease, this condition may involve ANY combination of tremors, postural unsteadiness, and rigidity of muscles in the limbs, neck, or trunk. Although the most common is a pill-rolling or alternating tremor of the hands, other kinds of tremors are occasionally seen. At times, a resident with Parkinsonism will have no tremor, only rigidity and shuffling gait. Symptoms respond to antiparkinson drugs, but not always completely. Dosage reduction or substitution of nonantipsychotic drug, when feasible, is the preferred management.

Akinesia. This condition is characterized by marked decrease in spontaneous movement, often accompanied by nonparticipation in activity and self-care. It is managed by reducing the antipsychotic drug or adding an antiparkinson drug.

Dystonia. This disorder is marked by holding of the neck or trunk in a rigid, unnatural posture. Usually the head is either hyperextended or turned to the side. The condition is uncomfortable and prompt treatment with an antiparkinson drug can be helpful.

Akathisia — the inability to sit still. The resident with this disorder is driven to constant movement, including pacing, rocking, or fidgeting, which can, at times persist for weeks, even after the antipsychotic drug is stopped. The condition responds occasionally to antiparkinson drugs, but less consistently than parkinsonism or dystonia. Sometimes benzodiazepines or beta-blockers are helpful in treating the symptom, although dosage reduction is the most desirable treatment when possible.

Tardive dyskinesia — persistent, sometimes permanent movements induced by long-term antipsychotic drug therapy. Most typical are thrusting movements of the tongue, movements of the lips, or chewing or puckering movements. These involuntary movements can clearly interfere with chewing and swallowing. When they do, the dyskinesia can be suppressed by raising the dose of the antipsychotic drug, but this will make the problem more permanent. When possible, it is usually preferable to reduce or eliminate the antipsychotic drug, because the symptoms of dyskinesia will often decrease over time after drug discontinuation.

Other variations of tardive dyskinesia include abnormal limb movements, such as peculiar and recurrent postures of the hands and arms, or rocking or writhing trunk movements. There is no consistently effective treatment. Withdrawal of the antipsychotic drug leads to eventual reversal of the symptoms over many months, in about 50% of cases.

Clarifying Information if Gait Disturbance Present (Other Than That Induced by Antipsychotics)

Long-acting benzodiazepine antianxiety drugs have been implicated in increasing the risk of falls and consequent injury by producing disturbances of balance, gait, and positioning ability. They also produce marked sedation, often manifested by short-term memory loss, decline in cognitive abilities, slurred speech,

Psychotropic Drug Use RAP (5 of 11)

drowsiness in the morning/daytime sedation, and little/no activity involvement. If an antianxiety drug is needed to treat an anxiety disorder, a short-acting benzodiazepine or buspirone would be preferable to a long-acting benzodiazepine. Buspirone is nonsedating and takes several weeks to work. Dosage should be increased slowly.

Clarifying Information if Cognitive/Behavior Impairment Present

Acute confusion/delirium. The MDS items which tap the syndrome of acute confusion or delirium, can all be caused or aggravated by psychotropic drugs of any of the major classes. If the resident does not have acute confusion related to a medical illness or severe depression consider the psychotropic drug as a cause. The most helpful information in establishing a relationship is the linkage between starting the drug and the occurrence of the change in cognitive status.

Depression. Both anti-anxiety and antipsychotic drugs may cause symptoms of depression as a side effect, or may aggravate depression in a resident with a depressive disorder who receives these drugs rather than specific antidepressive therapy.

Hallucinations/delusions. While these are often symptoms of mental illness, all of the major classes of psychotropic drugs can actually produce or aggravate hallucinations. The antidepressant drugs, the more anticholinergic antipsychotic drugs, and the shorter-acting benzodiazepines such as triazolam and lorazepam are most implicated in causing visual hallucinations. Visual hallucinations in the aged are virtually always indicative of brain related disturbance (e.g., delirium) rather than a psychiatric disorder.

Major differences in AM/PM self-performance. All classes of psychotropic drugs can have an effect on a resident's ability to perform activities of daily living. Establishing a link between the time a drug is taken and the change in self-performance is helpful in evaluating the problem.

Decline in cognition/communication. Decline in these areas signals the possibility that the decline is drug-induced and the need to review the relationship of the decline with initiation or change in drug therapy. All major classes of psychotropics can cause impairment of memory and other cognitive skills in vulnerable residents. While memory loss in nursing facility residents is caused primarily by dementing disorders and other neurologic disease, psychotropic drugs, particularly those with anticholinergic side effects, and long-acting benzodiazepines, definitely contribute to memory impairment. In contrast, treatment of depression or psychosis can actually improve usable memory, which is very much disrupted by severe psychiatric illness. If memory worsens after initiating or increasing the dose of a psychotropic drug, consider reducing or discontinuing the drug, or substituting a less anticholinergic drug. For a resident with anxiety, a short-acting benzodiazepine or buspirone is preferable to a long-acting benzodiazepine.

Decline in mood. (See reference to Depression above.)

Decline in behavior. Problem behaviors may be aggravated and worsened by psychotropic drugs as they can contribute to confusion, perceptual difficulties, and agitation.

Decline in ADL status. Drug side effects must always be considered if a resident becomes more dependent in ADLs. In addition, psychotropic drugs can precipitate or worsen bladder incontinence either through a change in cognition or through a direct action on bladder function.

Clarifying Issues if Drug-Related Discomfort Present

Dehydration; Reduced dietary bulk; Lack of exercise.

Constipation/fecal impaction. Any psychotropic drug with anticholinergic effects can cause or aggravate constipation; the effects are pronounced with tricyclic antidepressants and with low-potency antipsychotic drugs such as chlorpromazine or thioridazine. Milder cases of constipation can be treated with stool softeners, bulk-forming agents, and increased fluid; more severe constipation is best managed by substituting a less anticholinergic agent, or decreasing or discontinuing the psychotropic drug if possible. Antianxiety drugs can contribute to constipation if they sedate the resident to the point that fluid intake or exeresis is impaired. The problem can be handled by switching to a less sedating drug, decreasing dosage, or discontinuing the drug if possible.

Urinary retention. This condition may be manifested by the inability to urinate, or new onset or worsening of urinary incontinence (caused by overflow of urine from a full bladder that cannot empty properly). Any psychotropic drug with anticholinergic properties can produce or aggravate urinary retention. The problem is best managed by substituting a less anticholinergic agent, or decreasing or discontinuing the psychotropic drug if possible.

Dry mouth. This symptom is a common side effect of any psychotropic drug with anticholinergic properties. Dry mouth can aggravate chewing and swallowing problems. Substituting a less anticholinergic drug may be helpful. Other remedies include artificial saliva or sugar-free mints or candies (sugar contributes to cavity formation).

WHEN TO DISCONTINUE DRUG TREATMENT

1. Drug treatment that is ineffective after a reasonable trial should be discontinued or changed. The definition of a reasonable trial depends on the drug class and therapeutic indication.
2. When a medication is effective, but produces troublesome side effects, either the dose should be reduced or the medication should be replaced by a therapeutically equivalent agent less likely to cause the problematic side effect. If this is not feasible, or if doing it leads to a recurrence of symptoms, specific medical therapy for the troublesome side effects should be considered. For example, if the best drug for treating a resident's depression causes constipation, stool softeners, laxatives, or bulk-forming agents can be prescribed.
3. When a medication is effective and does not cause troublesome side effects, it should be continued for a defined period, and then efforts should be made to taper and eventually discontinue the drug.
4. Psychotropic medication should be prescribed on a permanent basis only if symptoms have recurred on at least two previous attempts to taper the medication after a defined period of therapy.

COMMONLY PRESCRIBED PSYCHOTROPIC DRUGS AND THEIR SIDE EFFECTS

TABLE A. ANTIPSYCHOTIC (NEUROLEPTIC) DRUGS

Generic Name	Brand Name	Incidence of Side Effects			
		Sedation	Hypotension	Anticholinergic Symptoms ¹	Extrapyramidal Symptoms ²
Chlorpromazine	Thorazine	Marked	Marked	Marked	Mild
Thioridazine	Mellaril	Marked	Marked	Marked	Mild
Acetophenazine	Tindal	Mild	Mild	Moderate	Mild
Perphenazine	Trilafon	Mild	Mild	Moderate	Moderate
Loxapine	Loxitane	Mild	Mild	Moderate	Moderate
Molindone	Moban	Mild	Mild	Moderate	Moderate
Trifluoperazine	Stelazine	Mild	Mild	Mild	Marked
Thiothixene	Navane	Mild	Mild	Mild	Marked
Fluphenazine	Prolixin	Mild	Mild	Mild	Marked
Haloperidol	Haldol	Minimal	Minimal	Mild	Marked

TABLE B. ANTIDEPRESSANT DRUGS

Generic Name	Brand Name	Incidence of Side Effects		
		Sedation	Hypotension	Anticholinergic Symptoms ¹
Cyclic antidepressants				
Imipramine	Tofranil	Mild	Moderate	Mod-strong
Desipramine	Norpramin	Mild	Mild-mod	Mild
Doxepin	Adapin	Mod-strong	Moderate	Strong
	Sinequan			
Amitriptyline	Elavil	Strong	Moderate	Very Strong
	Triavil			
Nortriptyline	Aventyl	Mild	Mild	Moderate
	Pamelor			
Maprotiline	Ludiomil	Mod-strong	Moderate	Moderate
Amoxapine*	Asendin	Mild	Moderate	Moderate
Fluoxetine	Prozac	Variable	Nil	Nil
Triazolopyridine Antidepressant				
Trazodone	Desyrel	Mod-strong	Moderate	Mild
MAO inhibitors⁺				
Phenelzine	Nardil	Mild	Moderate	Mild
Tranlycypromine	Parnate	Mild	Moderate	Mild
Other				
Bupropion	Wellbutrin	None May cause agitation High incidence of seizures	Nil	Nil

COMMONLY PRESCRIBED PSYCHOTROPIC DRUGS AND THEIR SIDE EFFECTS (cont.)

TABLE C. ANTIANXIETY AND HYPNOTIC DRUGS

Generic Name	Brand Name	Duration of Action
Benzodiazepines		
Triazolam	Halcion	Very short
Oxazepam	Serax	Short
Temazepam	Restoril	Short
Lorazepam	Ativan	Short
Alprazolam	Xanax	Medium
Chlordiazepoxide	Librium	Long
Diazepam	Valium	Long
Clorazepate	Tranxene	Long
Flurazepam	Dalmane	Very long
Barbiturates		
Antihistamines		
Diphenhydramine	Benadryl	Moderate
Hydroxyzine	Vistaril	Moderate
Chloral hydrate	Noctec	Long
Other		
Buspirone	BuSpar	Not meaningful

* Also a neuroleptic drug with all the neuroleptic side effects.

+ Special diet required; many drug interactions.

1 Anticholinergic symptoms include: dry mouth, constipation, urinary retention, blurred vision, confusion, disorientation, short-term memory loss, hallucinations, insomnia, agitation and restlessness, picking behaviors, fever.

2 Extrapyramidal symptoms include: movement disorder, such as Parkinsonism, dyskinesias, and akathisia (described in text). Antidepressants (except Amoxapine) and anti-anxiety/hypnotics do not produce extrapyramidal side effects.

PSYCHOTROPIC DRUG USE RAP KEY (For MDS Version 2.0)

TRIGGER — REVISION

GUIDELINES

TO BE TRIGGERED, MUST FIRST USE PSYCHOTROPIC DRUG [Antipsychotic, antidepressant, or antianxiety] [O4a,b, or c = 1-7]. If used, go to RAP review if one or more of following present:

Potential for Drug-Related Hypotension or gait disturbances

- Repetitive physical movements^(a)
[E1n = 1,2]
- Balance While Sitting
[G3b = 1,2,3]
- Hypotension
[I1i = checked]
- Dizziness/Vertigo^(b)
[J1f = checked]
- Syncope
[J1m = checked]
- Unsteady Gait
[J1n = checked]
- Fell in past 30 days^(b)
[J4a = checked]
- Fell in past 31-180 days^(b)
[J4b = checked]
- Hip fracture
[J4c = checked]
- Swallowing problem
[K1b = checked]

Potential for Drug-Related Cognitive/Behavioral Impairment if: ^(c)

- Delirium/Disordered Thinking
 - Easily distracted
[B5a = 2]
 - Periods of altered perception or awareness of surroundings
[B5b = 2]

^(a) Note: This item also triggers on the Mood RAP
^(b) Note: These items also trigger on Falls RAP
^(c) Note: All of these items also trigger on the Delirium RAP

If resident is triggered, review the following:

- Drug review [from record]
 - Length of time between when drug first taken and onset of problem;
 - Doses of drug and how frequently taken;
 - Number of classes of psychotropics taken;
 - Reason drug prescribed
- Review resident's condition that affect drug metabolism/excretion

Impaired liver/renal function [I1qq, I3]; Acute condition [J5b]; Dehydration [J1c]
- Review Behavior/Mood Status: Current problem status [E1, E2, E4], Recent changes [E3, E5], Behavior management program [P1be, P2]; Psychiatric Diagnoses [I1dd, ee, ff, gg]

Clarifying Information if Hypotension present:

- Postural changes in vital signs [from exam]
- Drugs with marked anticholinergic properties [from record]

Clarifying Information if Movement Disorder present:

- High Fever [J1h] AND/OR Muscular rigidity [from record, observation]
- Tremors, especially of hands; pill-rolling of hands; muscle rigidity of limbs, neck, trunk (Parkinsonism) [I1y; from record, observation]
- Marked decrease in spontaneous movement (Akinesia) [from record, observation]
- Rigid, unnatural, uncomfortable posture of neck or trunk (Dystonia) [from record, observation]
- Restlessness, inability to sit still (Akathisia) [from record, observation]
- Persistent movements of the mouth (e.g., thrusting of tongue, movements of lips, chewing/puckering) AND/OR peculiar and recurrent postures of limbs, trunk (Tardive Dyskinesia) [from record, observation]

PSYCHOTROPIC DRUG USE RAP KEY (continued)

TRIGGER — REVISION

- Episodes of disorganized speech
[B5c = 2]
- Periods of restlessness
[B5d = 2]
- Periods of lethargy
[B5e = 2]
- Mental function varies over the course of the day
[B5f = 2]
- Deterioration in Cognitive Status ^(c)
[B6 = 2]
- Deterioration in Communication
[C7 = 2]
- Deterioration in Mood ^(c)
[E3 = 2]
- Deterioration in Behavioral Symptoms ^(c)
[E5 = 2]
- Depression
[I1ee = checked]
- Hallucinations
[J1i = checked]

Potential for Drug Related Discomfort if:

- Constipation
[H2b = checked]
- Fecal Impaction
[H2d = checked]
- Lung Aspiration
[J1k = checked]

GUIDELINES

Clarifying Information if Gait Disturbances present:

- Long-acting benzodiazepines [from med record]
 - Recent dosage increase [from med record]
- Short-term memory loss; Decline in cognition [B6]; Slurred speech [C5]
- Decreased AM wakefulness [E1k; N1a]; Little/no activity involvement [N2]

Clarifying Information if Cognitive/Behavioral Impairment present:

If neither of following are present, psychotropic drug side effects can be considered as a major cause of problem:

- Acute confusion (delirium) related to medical illness [B5]
- Depression [I1ee]

Clarifying Issues if Drug-Related Discomfort present:

- Dehydration [J1c]; Reduced dietary bulk; Lack of exercise [from record], Constipation [H2b], Fecal impaction [H2d], Urinary retention [I3; from record]
- Other potential drug-related discomforts that may require resolution: Dry mouth, if on antipsychotic or antidepressant [observation]

RESIDENT ASSESSMENT PROTOCOL: PHYSICAL RESTRAINTS

I. PROBLEM

Studies of nursing homes show that between 30 and 40% of residents are physically restrained. This is quite serious since negative effects of restraint use include declines in residents' physical functioning (e.g., ability to ambulate) and muscle condition, contractures, increased incidence of infections, and development of pressure sores, delirium, agitation, and incontinence. Moreover, restraints have been found in some cases to increase the incidence of falls and other accidents (e.g., strangulation). Finally, residents who are restrained face the loss of autonomy, dignity and self-respect. In effect, the use of physical restraints undercuts the major goals of long-term care — to maximize independence, functional capacity, and quality of life. Thus, the goal of minimizing or eliminating restraint use has become central to both clinical practice and federal law.

The primary reason given for applying restraints is to protect residents from falls and accidents. Facilities are also concerned about potential lawsuits and malpractice claims that might result if residents should fall. Other reasons cited for restraint use include to provide postural support or positioning for residents, to facilitate treatment (e.g., preventing residents from pulling out IV lines or NG tubes), and to manage behaviors such as wandering or physical aggressiveness.

The experience of many health care providers suggests that facility goals can often be met without the use of physical restraints and their negative side effects. In part, this involves identifying and treating health, functional, or psychosocial problems that may be causing the condition for which restraints were ordered (e.g., falls, wandering, agitation). Minimizing use of restraints also involves care management alternatives, such as: modifying the environment to make it safer; maintaining an individual's customary routine; using less intrusive methods of administering medications and nourishment; and recognizing and responding to residents' needs for psychosocial support, responsive health care, meaningful activities, and regular exercise.

II. TRIGGERS

Definition: Physical restraints are any manual method or physical or mechanical device, material, or equipment attached or adjacent to the resident's body that the resident cannot easily remove and that restricts freedom of movement or normal access to his/her body.

- Use of trunk restraint ^(a)
[P4c = 1,2]
- Use of limb restraint
[P4d = 1,2]
- Use of chair that prevents rising
[P4e = 1,2]

^(a) Note: Code 2 also triggers on the Pressure Ulcer RAP. Both codes trigger on the Falls RAP

III. GUIDELINES

In evaluating and reconsidering the use of restraints for a resident, consider needs, problems, conditions, or risk factors (e.g., for falls) which, if addressed, could eliminate the need for using restraints. Refer to the RAP KEY for specific MDS items to consider as you review the following issues.

Physical Restraints RAP (1 of 5)

WHY ARE RESTRAINTS USED?

The first step in determining whether use of a restraint can be reduced or eliminated is to identify the reasons a restraint was applied.

- Review the resident's record and consult primary caregivers to determine reason for use.

Ask the following questions:

- *Why* is the resident restrained?
- *What type(s)* of restraint is used?
- *During what time of day* is each type(s) used?
- *Where* is the resident restrained (e.g., own room in bed, chair in hallway)?
- *How long* is the resident restrained each day?
- *Under what circumstances* (e.g., when left alone, after family leave, when not involved in structured activity, when eating)?
- *Who* suggested that the resident be restrained (e.g., staff, family, resident)?

CONDITIONS ASSOCIATED WITH RESTRAINT USE.

It may be possible to identify and resolve health/functional/psychosocial needs, risks, or problems that caused restraints to be used. By addressing the underlying condition(s) and cause(s), the facility may eliminate the apparent need for the restraint(s). In addition, a review of underlying needs, risks, or problems may help to identify other potential kinds of treatments. After determining why and how a restraint is used, review the appropriate areas described below.

Problem Behavioral Symptoms.

To determine presence of a behavioral symptom, review the MDS. If the behavioral symptom for which the resident is restrained was not exhibited in the last 7 days, was it because the restraint prohibited the behavior from occurring (e.g., resident was restrained and could not wander)? If a behavioral symptom was present during the last 7 days or the resident was restrained to prevent a behavioral symptom, consider the resident to have a behavioral symptom and review Behavioral Symptom RAP as indicated.

Risk of Falls.

Although restraints have not been shown to safeguard residents from injury, one of the most common reasons given by facilities for restraining residents is to prevent falls. In some instances, restraints have been reported to contribute to falls and injuries. Because of the complications associated with restraint use, many physicians and geriatric clinicians recommend exploring alternatives for preventing falls, such as treating health problems and making environmental modifications.

- Review risk factors for falls on RAP KEY. Refer to Falls RAP if these risks are present or if the restraint is being used to prevent falls.

Conditions and Treatments.

Another reason facilities give for using restraints is to prevent a resident from removing tubes.

If the resident is being restrained to manage resistance to any type of tube or mechanical device (e.g., indwelling/external catheter, feeding tube, intravenous line, oxygen mask/cannula, wound dressing), review the following to facilitate decision-making:

- Is the tube/mechanical device used to treat a life-threatening condition?
- Does the resident actually need a particular intervention that may be potentially burdensome to him/her? Are there less intrusive treatment options?
- Why is the resident reacting to the tube/mechanical device with resistance? (e.g., Does the device produce discomfort or irritation? Is the resident really resisting or is the device just something to fidget with? Is the treatment compatible with the resident's wishes? Does the resident understand the reason for the method of treatment? Has the resident/family been informed about the risks and benefits of treatment options?)

HCFA Guideline: "If there are medical symptoms which are life threatening (such as dehydration, electrolyte imbalance, urinary blockage) then a restraint may be used temporarily to provide necessary lifesaving treatment. Physical restraints may be used for brief periods to allow medical treatment to proceed, if there is documented evidence of resident or legal approval of the treatment."

- If an indwelling or external catheter is present, review the Urinary Incontinence RAP for alternatives.
- If a feeding tube is present, review the Feeding Tube RAP

ADL Self-Performance.

In rare instances, a restraint can enhance a resident's ability to be more self-sufficient, IF the restraint use is supportive and time-limited.

Review the MDS, to determine if the restraint contributes to the resident's self-performance of an activity (e.g., wheelchair belt supports trunk while resident wheels self, geri-chair used only at meals enables wandering resident to attend to feeding self).

Confounding problems to be considered:

Many problem behaviors are manifestations of unmet health, functional, and/or psychosocial needs that can often be reduced, eliminated, or managed by addressing the conditions that produced them. (See RAP on Behavioral Symptoms). Conditions associated with behavioral symptoms and restraint use include:

- Delirium (acute confusional state)
- Impaired cognition
- Impaired communication (e.g., difficulty making needs/wishes understood or understanding others)

- Unmet psychosocial needs (e.g., social isolation, disruption of familiar routines, anger with family members)
- Sad or anxious mood
- Resistance to treatment, medication, nourishment
- Psychotropic drug side effects (e.g., motor agitation, confusion, gait disturbance)
- If a behavior management program is in place, does it adequately address the causes of the resident's particular problem behaviors?

Other Factors to be Considered.

Resident's Response to Restraints

In evaluating restraint use, it is important to review the resident's reaction to restraints (e.g., positive and negative, such as passivity, anger, increased agitation, withdrawal, pleas for release, calls for help, constant attempts to untie/release self). This will help determine whether presumed benefits are outweighed by negative side effects.

Review MDS items on other potential negative effects of restraint use, such as declines in functional self-performance, body control, skin condition, mood and cognition, since restraints have been in use.

Alternatives to Restraints

Many interventions may be as effective or even more effective than restraints in managing a resident's needs, safety risks, and problems. To be effective the intervention must address the underlying problem.

- Review resident's record and confer with staff to determine whether alternatives to restraints have been tried.
- If alternatives to restraints have been tried, what were they?
- How long were the alternatives tried?
- What was the resident's response to the alternatives at the time?
- If the alternative(s) attempted were ineffective, what else was attempted?
- How recently were alternatives other than restraints attempted?

Philosophy and Attitudes

In reconsidering the use of restraints for a resident, consider the philosophy, values, attitudes, and wishes of the resident regarding restraint use, as well as those of his family/significant others, and caregivers. Consider the impact of restraints on facility environment and morale.

- Is there consensus or differences among affected parties in choosing between resident independence and freedom in favor of presumed safety?

PHYSICAL RESTRAINTS RAP KEY (For MDS Version 2.0)

TRIGGER — REVISION

GUIDELINES

Review for efficacy, side effects and alternatives if one or more of the following:

Review factors and complications associated with restraint use:

- Use of trunk restraint ^(a)
[P4c = 1,2]
- Use of limb restraint
[P4d = 1,2]
- Use of chair that prevents rising
[P4e = 1,2]

- Behavioral Symptoms: Repetitive physical movements [E1n], Any behavioral symptoms [E4], Part of behavior management program [P1be, P2; from record]
- Risk of Falls: Dizziness [J1f]; Falls [J4a, J4b]; Antianxiety [O4b]; Antidepressant [O4c]
- Conditions and Treatments:— Catheter [H3c,d]; Hip fracture [J4c, I1m]; Unstable/acute condition [J5a,b]; Parenteral/IV and/or feeding tube [K5a,b]; Wound care/treatment [M5f,g,h,i]; IV meds [P1ac]; Respirator/Oxygen [P1ag, P1al]
- ADL Self performance [G1]
- Confounding problems to be considered:
 - Delirium [B5]
 - Cognitive loss/dementia [B2, B4]
 - Impaired communication [C4, C6]
 - Sad/anxious mood [E1, E2]
 - Resistance to treatment/meds/nourishment [E4e]
 - Unmet psychosocial needs [F1, F2, F3]
 - Psychotropic drug side effects [see record, J1e,f,h,i,m,n]
- Other factors to be considered: Resident's response to restraint(s); use of alternatives to restraints; resident/family/staff philosophy, values, wishes, attitudes about restraints [record, observation, discussion]

^(a) Note: Code 2 also triggers on the Pressure Ulcer RAP. Both codes trigger on the Falls RAP

4. Know what you want to cover. Leave a few minutes for staff to provide open-ended comments that may pertain to the well-being of the resident.
5. Provide other staff members with a list of areas you wish to cover to expedite the process.
6. Key your questions to the time period for which resident performance is being assessed.

You will often need to discuss a resident with more than one facility staff member. For example, an individual staff member who has been on a 3 week vacation may recall the resident's function a month ago instead of during the last 7 days. A nurse that floats from unit to unit may not know the residents well enough to respond appropriately. If a facility staff respondent struggles with answers or seems vague in referring to the time period in question, you should consider seeking another respondent.

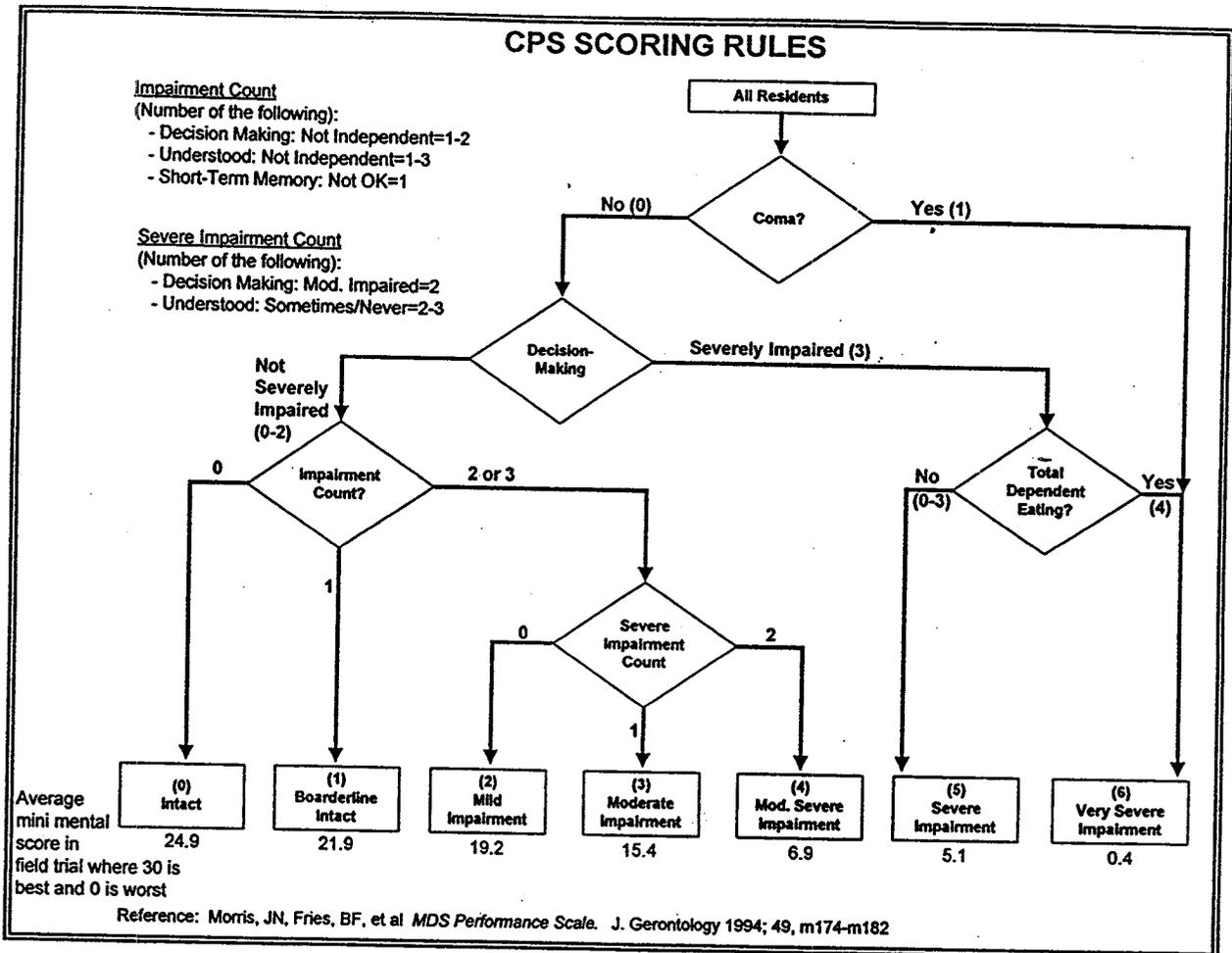
Reinforce to all staff at the onset of the interview that you are gathering information to learn as much about the resident as possible to best plan for the resident's care. Reassure any staff that your purpose is the RAI process and not an evaluation of their job performance.

This list includes examples of diuretics (brand name and generic equivalents) likely to be seen in a nursing home population. This list is not inclusive; consult your pharmacist, the resident's physician, or a drug reference manual, as necessary.

Brand (generic)

Aldactazide (spironolactone/hydrochlorothiazide)
Aldactone (Spironolactone)
Aqua-Ban
Aquatensen (Methyclothiazide)
Bumex (Bumetanide)
Diamox (Acetazolamide)
Diuril (Chlorothiazide)
Dyazide (Triamterene/hydrochlorothiazide)
Dyrenium (Triamterene)
Edecrin (Ethacrynic Acid)
Enduron (Methyclothiazide)
Esidrix (Hydrochlorothiazide)
Hydrodiuril (Hydrochlorothiazide)
Hydromox (Quinethazone)
Hygroton (Chlorthalidone)
Lasix (Furosemide)
Lozol (Indepamide)
Mannitol (Mannitol)
Maxzide (Triameterene/hydrochlorothiazide)
Midamor (Amiloride)
Moduretic (Amiloride HCl/hydrochlorothiazide)
Neptazane (Methazolamide)
Oretic (Hydrochlorothiazide)
Zaroxolyn (Metolazone)

APPENDIX F



APPENDIX G

<p>STATUTORY AND REGULATORY REQUIREMENTS FOR LONG TERM CARE FACILITIES - RESIDENT ASSESSMENT AND CARE PLANNING</p>

The following table displays the statutory requirements and the Federal regulations related to the Resident Assessment Instrument (RAI), the Minimum Data Set (MDS) and care planning for Medicare or Medicaid certified long term care facilities.

Section 1819 of the Social Security Act is the Federal law regarding the requirements for skilled nursing facilities (SNFs) participating in the Medicare program. Section 1919 of the Social Security Act is the Federal law regarding the requirements for nursing facilities (NFs) participating in the Medical Assistance program.

Part 483 of Title 42 of the code of Federal Regulations (CFR) are the requirements for Long Term Care Facilities (SNFs and NFs). "F" tags are Health Care Financing Administration (HCFA) data tags assigned to each of the requirements in 42 CFR 483.

REQUIREMENT AREA	STATUTORY RE- QUIREMENT (MEDICARE)	STATUTORY REQUIREMENT (MEDICAID)	FEDERAL REGULATION/ HCFA "F" TAG
Specification of MDS Core Elements	1819 (f)(6)(A)	1919 (f)(6)(A)	
Designation of RAI Instruments	1819 (f)(6)(B)	1919 (f)(6)(B)	
Services to be Provided in Accordance with Plan of Care	1819 (b)(2)	1919 (b)(2)	42 CFR 483.20 (d)(1-3) F 279, F 280, F 281
Requirement for Resident Assessments	1819 (b)(3)(A)	1919 (b)(3)(A)	42 CFR 483.20 (a-b) F 271, F 272

<p>Certification of Resident Assessment</p> <p>i. Completion and Signature(s)</p> <p>ii. Penalty for Falsification</p> <p>iii. Use of Independent Assessors</p>	<p>1819 (b)(3)(B)</p>	<p>1919 (b)(3)(B)</p>	<p>42 CFR 483.20 (c)(1-2) F 278 42 CFR 483.20 (c)(3) F 278 42 CFR 483.20 (c)(4) F 278</p>
<p>Frequency of Assessments</p>	<p>1819 (b)(3)(C)</p>	<p>1919 (b)(3)(C)</p>	<p>42 CFR 483.20 (b)(4-5) F 273, F 274, F 275, F 276</p>
<p>Use of Assessments</p>	<p>1819 (b)(3)(D)</p>	<p>1919 (b)(3)(D)</p>	<p>42 CFR 483.20 (c)(6) (Refer to F 279)</p>
<p>Coordination with State-Required Preadmission Screening Program</p>	<p>1819 (b)(3)(E)</p>	<p>1919 (b)(3)(E)</p>	<p>42 CFR 483.20 (c)(7) F 277</p>
<p>State Specification of Resident Assessment Instrument</p>	<p>1819 (e)(5)</p>	<p>1919 (e)(5)</p>	
<p>Clinical Record Requirements for Resident Assessment and Plan of Care</p>	<p>1819 (b)(6)(C)</p>	<p>1919 (b)(6)(C)</p>	<p>42 CFR 483.75 (n)(6) F 516</p>