



# Mobility Decline Prevention: Training Module

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# About This Training Module

**T**his training module provides instructions for implementing two programs that help nursing home residents maintain function in Activities of Daily Living (ADL).

It starts with a list of *learning objectives*. Following that is a discussion of the problem—ADL decline among nursing home residents—with an overview of the solution—exercise.

The next sections constitute how-to manuals for implementing two exercise interventions:

- a **walking program**, appropriate for the minority of residents who are ambulatory, and
- an **exercise intervention** aimed at the 50-60% of long-stay residents who are incontinent, with many of them severely cognitively impaired.

Elsewhere in this module—Links, FAQs, Related Studies—we provide guidance and referrals to other resources that can help you prevent ADL decline among your residents.

## CONTACT US

We've tried to be comprehensive, but if there is something you can't find, or if you have unanswered questions, comments, or concerns, please feel free to contact us at the Center for Quality Aging:

Vanderbilt University Medical Center  
Center for Quality Aging  
1611 21<sup>st</sup> Ave South  
Rm S-1121 Medical Center North  
Nashville, TN 37232-2400  
[www.vanderbiltcqa.org](http://www.vanderbiltcqa.org)

# Learning Objectives

**A**t the end of this training module, you will be able to:

- Demonstrate knowledge of the importance of providing regular exercise for nursing home residents.
- Assess residents for their ability to safely participate in a walking program.
- List at least three modifications that can make a walking program potentially more feasible to implement.
- List at least four ways certified nurse aides (CNAs) can encourage residents to participate in a walking program and enhance their enjoyment of the program.
- Compare and contrast the FIT (Functional Incidental Training) program to group exercise programs for frail nursing home residents.
- Identify the benefits of implementing prompting voiding as part of the FIT program.
- Describe and implement both the incontinence care and exercise components of FIT.
- List at least two methods for monitoring a walking program and two methods for monitoring the FIT program.

All procedures presented in this module are in accordance with the federal regulations that govern nursing home care and best practice guidelines for preventing mobility decline among residents.

# The Problem, The Solutions

Learn what's expected of nursing homes with regard to improving residents' functional abilities

## Q & A: EXERCISE WITH RESIDENTS

Having spent the last 15 years conducting research in nursing homes, spending more time in some facilities than the residents themselves, we at the **Center for Quality Aging** are nothing if not realists. So here are our pointed answers to some pertinent questions about exercise with frail nursing home residents.

- Q. Will offering regular exercise to residents require more time than providing usual care?
- A. Yes, without question (1,2).
- Q. Will regular exercise help restore function so that impaired residents are more independent as a result?
- A. Probably not; it's unlikely BUT regular exercise can help to slow functional decline among residents who are already frail and at great risk for further decline and physical dependency (1,2).
- Q. Will regular exercise reduce the incidence of common healthcare problems in residents such as pressure ulcers, falls, cardiovascular conditions, and the like.
- A. It's unlikely (3).
- Q. Then why the heck should our facility strain already limited resources to offer regular exercise to residents who you say will probably not improve their health as a result?

Here's our most pointed answer of all: Because if you do nothing, then so will many of your residents. As a result, their mobility, strength, and endurance will inevitably decline, and then so probably will

their health and quality of life (1-3). Call it a sin of omission.

## CMS TO NURSING HOMES: "TRY TO IMPROVE FUNCTIONAL ABILITY"

These days the federal Centers for Medicare & Medicaid Services (CMS) is encouraging long-term-care consumers to use their purchasing power to hold nursing homes accountable for poor quality of care. Its **Nursing Home Compare website** exerts pressure on the industry by reporting, for each facility in the nation, the percentage of residents whose need for help with Activities of Daily Living (ADLs) has increased. A bad score signals potential problems and may steer consumers away from the facility.

Delve a few pages into this website and you find that CMS is also educating consumers to be discerning nursing home shoppers. "Nursing homes should always strive, with every resident, to try to improve functional ability as much as possible..." it advises. "When you visit the nursing home, ask what programs are in place to maintain and improve the physical function of the residents." (4)

The message from CMS is clear: Your facility needs to do something to help residents accomplish such basic daily activities as walking, transferring, and moving in bed. The benefits of such support programs, typically exercise programs, include enhancing self-image and increasing activity levels. The chief benefit, however, may lie not in what these programs improve but in what they prevent: further functional decline.

## AT THE VERY LEAST, PREVENT DECLINE

These days no one is expecting miracles from your facility. Those of us who work in long-term care have come to realize that the functional abilities of long-stay nursing home residents have worsened in recent years as housing options for more independent seniors have expanded. With today's very frail nursing home population, the first goal is not so much to improve ADL function (though that would be great) as it is to prevent its decline.

Even the folks at CMS seem to recognize this new reality. Its quality measure doesn't bother to look at long-stay residents who have improved their ADL function, just those who have gone downhill. In a statement to consumers, CMS notes: "Regardless of how much effort a nursing home program puts into improving function in their population of frail elderly residents, some residents will inevitably experience a loss in function over time. This is especially true of very sick or very frail residents..." And, we might add, that's most of them.

## USE IT OR LOSE IT

The question now is not whether to offer programs that help residents maintain their ADL function but what kinds of programs to offer.

Ultimately, it boils down to that wise adage: Use it or lose it. If residents are to maintain their ability to walk, transfer, use the toilet, or move in bed, then they must continue to engage in these activities or something very much like them.

This training module provides instructions for implementing two programs that help

residents maintain ADL function. The first is a walking program, appropriate for the minority of nursing home residents who are ambulatory. The second is an exercise intervention aimed at the 50-60% of nursing home residents who are incontinent. Unlike many other exercise programs in nursing homes, this one welcomes residents who are severely cognitively impaired.

## PROGRAM PREREQUISITES

Three pre-requisites are recommended before you start:

- First, enlist top-level support from a managerial "champion" to facilitate acceptance of the new programs by direct care staff. One way to recruit help: Hand the likely champion a **printed copy of this module** and ask if you two can discuss it after he or she has read it. Have you considered that you yourself might be the champion? Also consider social activities personnel and restorative nurse aide staff.
- Second, read through all steps of the walking program and/or all steps of the exercise intervention so that, from beginning to end, you know what's needed to achieve success. **Print the module in full** if you want to browse through the programs when you're away from your computer.
- Finally, allow extra time at the beginning to climb the learning curve; trust us—both programs consume less staff time the longer your facility administers them.

## PRE-REQUISITES FOR RESIDENTS

Preliminary to participating in either program, residents should be treated if they have a current medical problem such as an infection or pain (see our **Pain Screening Module**).

A pharmacist's or physician's review of their medications is also helpful. This review may prevent or minimize such side-effects as drowsiness and confusion, which can undermine participation in exercise programs.

## YOUR ASSIGNMENT

This is often an eye-opener for medical directors and nurse supervisors: Stroll down your facility's hallways at 10 a.m. and again at 4 p.m. on the same day. Each time, note the names or room numbers of residents whom you observe in bed. Compare the two lists to identify those residents observed in bed at both times. Our research indicates that these residents spend an estimated 16 or more hours a day in bed and these residents are not "bed-bound" for medical reasons (5). These residents definitely are not "using it." There's a good chance they're "losing it." It's time to exercise.

## REFERENCES

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2. Schnelle JF, Alessi CA, Simmons SF, Al-Samarrai NR, Beck JC, and Ouslander JG. (2002). Translating clinical research into practice: A randomized controlled trial of exercise and incontinence care with nursing home residents. *Journal of the Amer Geriatrics Soc*; 50:1476-1483.
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- costs in a nursing home population? *Journal of the Amer Geriatrics Soc*; 51:161-168.
4. Centers for Medicare and Medicaid Services. *Nursing Homes Compare*. Accessed June, 2004
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# The Walking Program

**Follow these four steps to implement a walking program for ambulatory residents.**

- Step 1: Conduct a screening assessment**
- Step 2: Find time for the program**
- Step 3: Walk**
- Step 4: Monitor the program**

## **Step 1: Conduct a Screening Assessment**

Follow this assessment procedure to identify nursing home residents who are appropriate candidates for a walking program.

### **SIMPLE, EFFECTIVE**

The beauty of walking programs is their simplicity. A number of such programs have been tested in nursing homes, and while they differ in their details, they all share a basic goal: Get residents to walk more as a means of improving or maintaining their mobility, strength, and endurance.

The problem with these programs is that only ambulatory residents are appropriate candidates for them. And with the blossoming of assisted living facilities and widely available home health care, these residents now represent a minority (and apparently shrinking) proportion of the nursing home population. Observed one veteran long-term-care researcher, “If a resident is especially ambulatory, you have to wonder why he or she is even in the nursing home.”

That said, walking programs for those who qualify are an appealing intervention that

helps prevent mobility decline. How do you implement one in your facility?

## **CONDUCT A SCREENING ASSESSMENT**

Start with resident assessment, and aim to be as inclusive as possible. Your residents may surprise you. We, for example, evaluated a walking program for frail, cognitively impaired residents and found that 19 of the 22 residents (86%) completed the 12-week program (1). We extended the program to 22 weeks and offered it to more residents for a total of 41 participants. Seventy-three percent of this group completed all 22 weeks of walking (1). We used no cognitive screen in this study, though we did require residents to pass a simple behavioral screen: They had to state their name (“What is your name?”) and reliably identify two common objects (e.g., pencil, wristwatch).

## **ASSESSMENT PROCEDURE**

Here, organized around questions and answers, is the procedure for conducting resident assessments for a walking program based on the one we tested:

### **Q. Who should conduct the screening assessment?**

A. A registered nurse

### **Q. When should assessments be conducted?**

A. At admission, with the Minimum Data Set (MDS) assessment, and with each quarterly MDS reassessment. When starting a new program, you may want to screen all residents in the facility within a week or two to get appropriate candidates onboard as soon as possible. Thereafter, screening

assessments at admission and quarterly will be sufficient.

**Q. What resident assessment criteria should be used to identify appropriate candidates?**

A. Residents should meet these criteria:

- Residents should be able to walk without human assistance. Use MDS items G1c(A), “walk in room,” and G1d(A), “walk in corridor,” to identify these ambulatory residents. Residents should be rated “0” (independent) or “1” (requires supervision) on *both* of these items to qualify for the walking program.
- Residents should be able to move from a sitting to a standing position either independently or with supervision and/or instructions.
- Some residents who can walk may nevertheless be inappropriate candidates for the program due to behavioral problems. At the very least, residents need to be able to follow a one-step command (See Screening Assessment).

As a practical matter, ask any resident who meets all the above criteria what time of day and how many times per day s/he prefers to exercise with staff assistance. The answer will help set walking schedules for qualified residents (see the **next section**).

**Q. If the resident passes this assessment, what next?**

A. Residents also need consent to participate from their physicians. Before contacting the physician, the nurse should collect the following relevant medical history information:

- Current medications, some of which might exclude the resident from exercise
- Any cardiac conditions that might exclude the resident from exercise such as frequent angina or severe congestive heart failure
- Other unstable medical conditions
- A terminal diagnosis with life expectancy of less than six months

The resident’s primary care physician may decide to exclude residents based on findings in the medical history.

**Q. Should residents with serious cognitive impairment be excluded?**

A. Not necessarily. If a resident with cognitive impairment passes the functional ability and behavioral screens and earns physician consent to participate, then s/he should be given the opportunity.

**YOUR ASSIGNMENT**

Print our **screening assessment form**. Use it to assess two or three residents, up to the point where you need to request physician consent. Then answer these questions: Were you able to complete the first half of each assessment? On average, how long did it take to complete this part of the assessment? Were any of the residents you assessed appropriate candidates for a walking program? Please **contact us** to share your answers. We’ll report your feedback in updates to this website.

**REFERENCES**

1. MacRae PG, Asplund LA, Schnelle JF, Ouslander JGF, Abrahamse A, and Morris C. (1996). A walking program for nursing home residents: Effects on walk endurance, physical activity, mobility, and quality of life. *Journal of the American Geriatrics Society*; 44:175-180.

## Step 2: Find Time for the Walking Program

Before you can implement a walking program, you need to find staff time for it. Learn about strategies for tailoring your programs so that it meets resident needs without overwhelming staff resources.

### WHERE WILL CNAs FIND THE TIME?

Once you have the physician's consent for a resident to participate (see **Step 1**), that resident can join the walking program.

In this program, certified nurse assistants (CNAs) are assigned to walk with the residents. Do they need special training? Probably not; their initial training should have prepared them. They do, however, need to be informed about the new program, either as a group when you first launch the program or as their assigned residents join it. Here, it is especially important to discuss time management with CNAs.

By far, the greatest impediment to implementing and maintaining a walking program is lack of staff time. As it is, most nursing homes are understaffed to the point that they have difficulty providing the most basic care to residents (1). Now consider that our program, similar to other walking programs, encourages residents to walk multiple times per day for up to 30 minutes a day. Where are CNAs going to find this kind of time in their busy schedules?

### EXPERIMENT WITH THESE STRATEGIES

We pride ourselves on giving straightforward answers, but we have none for this question, nor could we find one in the literature. What works in one facility

may fail in another for a myriad of complex factors: case mix, staff-to-resident ratios, organization of current services, even who is on which hallway.

What we can offer are strategies for tailoring your walking program so that it meets residents' needs without overwhelming your staff resources. Consider them all, then implement those that you believe will work best in your facility.

### Try it, then tinker

Pilot test the walking program with a handful of residents on one or two hallways for up to two weeks. Then ask the staff involved to identify what worked well and what didn't. Make changes as needed to ensure that a facility-wide implementation rolls out smoothly.

### Ask CNAs for suggestions

CNAs can help you brainstorm realistic strategies for implementing the walking program. You might start by asking a question such as this: "If you were assigned to walk with 1-3 residents for 10-30 minutes a day per resident, how would you manage this task?" (Keep in mind, and remind the CNAs, that most residents will probably *not* participate in the walking program.)

If CNAs feel they couldn't manage the task, ask them to consider variations on the program: "What if the walking program was implemented on fewer days?" "What if some residents walked in small groups (of 2 or 3)?" "What if walking was broken up over the course of the day and integrated with other daily care activities such as toileting or going to the dining room for meals?"

Listen to their answers. Try to implement their solutions.

### **Establish a set time for walking**

Find a time for daily walks that suits both the resident and the assigned CNA, then stick with the schedule. It may take several days to determine the best schedule for all involved. One strategy that proved particularly successful in a few homes we worked with was to have CNA staff provide walking assistance to residents three times/daily in the context of residents going to the dining room for regularly-scheduled meals. This strategy not only ensured that residents received walking assistance three times per day (in small, manageable time increments of 5-10 minutes per episode) but it also allowed for fewer wheelchairs in the dining room. This established daily routine also ensured that all staff and residents knew exactly when to provide assistance each day – mealtime served as a trigger for walking assistance care provision.

In the *initial screening* (**see Step 1**), you should ask residents when they prefer to exercise. Try first to schedule walks at or as close as possible to those times. If you can't meet a resident's preference, go with the next best alternative. If the resident objects, you have several options: work with the resident to find a new time; explain your constraints to the resident and ask for cooperation; or ask the resident again in a day or two—it's possible the resident will have changed his or her mind.

Allow up to 30 minutes per resident per day for walking. Expect increases in the amount of time that residents can walk. When we tested our walking program, participating residents increased the

amount of time they walked from an average of 11 minutes at the start to 20 minutes after 12 weeks (2); at that point, walking times stabilized.

### **Make walking a regular part of the day**

An alternative to setting aside a specific time for walking is to integrate walking with residents' other daily care routines, such as using the toilet or going to the dining room (see above, "Establish a set time for walking"). Residents do not have to walk all at one time to gain benefits from the program. Several short walks works just as well, if not better for frail older adults, as one long walk.

### **Walk in groups**

This may be an especially feasible (and enjoyable) option for residents who are rated "0," or independent, on the MDS walking items. One CNA could be assigned to assist two to three fairly independent walkers, or two CNAs could assist 4-5 walkers. This latter option allows the CNAs to cover for each other if a resident needs special assistance during a walk. This approach offers a more time-efficient way for staff to provide assistance, encourages social interaction among the residents and staff during the walk, and allows staff to actually use outside areas designed for walking (e.g., gardens, paths). It is notable that many facilities have such designated outdoor spaces to encourage walking but few residents are allowed to enjoy the space alone. The presence of staff ensures resident safety while also allowing an opportunity for a pleasant change of scenery for everyone.

## **Drop uncooperative residents from the program**

Don't get us wrong; we're not trying to scratch participants from the program. Residents should be encouraged to walk, and if at first they refuse, as some likely will, they should be asked again within a day or two. And then again, if necessary. But it's reasonable to impose a stopping rule. So...any resident who refuses to walk on three occasions in a row should be dropped from the program. If, however, the resident still qualifies for the walking program at the next MDS reassessment, he or she should be considered a participant, and encouraged to walk, again, and again, if necessary. Staff should also be sure to ask about the resident's preferences for walking (e.g., time of day) and reasons why s/he does not want to walk. It could be that pain, which is treatable, is keeping the resident sedentary (Refer to our Pain Prevention Module). It also could be that the resident is bored by the idea of simply walking down the hall, so be sure to offer choices (e.g., walking in small groups with other residents, walking outdoors, walking to/from the dining room for meals or social activities). Maybe the resident simply needs gentle encouragement and a purposeful destination to be motivated to walk.

## **Graduate safe, active walkers from the program**

Any participating resident who proves able to walk for more than 30 minutes a day independently and safely probably does not need CNA assistance to walk. A registered nurse should evaluate these residents' ability to walk safely on their own. If they pass this assessment, the resident can "graduate" from the walking program. They may, however, still need

verbal reminders and encouragement to walk daily (e.g., to meals, activities).

## **Cut back on the number of days the program is offered or the maximum number of minutes walked each day**

We consider this a strategy of last resort because it will compromise the effectiveness of the program and dilute its beneficial outcomes. But if none of the above strategies work for your facility, then cutting back on days or minutes may be your best option. Better some walking than none. This option also is preferable by far to excluding willing participants from the program - a strategy that we believe is ethically and clinically unjustifiable.

## **YOUR ASSIGNMENT**

This will be quick: From the list of strategies described above, pick the three that you believe are worth trying first in your facility. Implement those three strategies in your walking program.

## **REFERENCES**

1. Schnelle JF, Cretin S, Saliba D & Simmons SF. (2000). Minimum nurse aide staffing required to implement best practice care in nursing homes. Chapter in report to congress: Appropriateness of Minimum Nurse Staffing Ratios in Nursing Homes. Health Care Financing Administration, Summer, Vol. 2: Chapter 14:pages 14.1-14.68; Abt Associates, Inc: Cambridge, MA.
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### Step 3: Walk

Follow these tips to increase resident compliance with your walking program.

#### SUGGESTIONS FOR SUCCESS

Finding staff time for the walking program was the hard part (see **Step 2**). The next step is relatively easy: Certified nurse aides (CNAs) should take walks with the residents. In our evaluation, we found that residents enjoyed the walking program, and their compliance rate showed this: On average, residents walked four out of five days per week over a 22-week period (1).

Below are suggestions for bolstering compliance rates and enhancing resident enjoyment in your program. Be sure to share these recommendations with the CNAs who will be walking with residents.

- To the extent possible, **let residents choose the time of day** for their walk (for more on this, see the previous section).
- **Let residents set their own pace.** Speed is not the point here. It's all about the effort.
- **Let residents choose the walking route** whenever possible. Some residents may prefer to choose a destination for their walk rather than circle the halls.
- **Set goals for walking.** We recommend setting goals based on the amount of time walked as opposed to distance walked. Each week note the resident's maximum (or average) daily walk time. In the next week, try to increase that time by a few minutes.

Expect walk times to level out after 10-12 weeks.

- **Converse during the walk.** One study found that conversation significantly improved compliance with an assisted walking program (2). Our guess is it made for a more pleasant activity.
- **Provide reassurance,** praise, encouragement, and verbal goal reminders to get residents up and keep them walking. A little cheering along can help a lot. However, end the walk if the resident asks to stop and does not want to start again following a brief resting period (1-2 minutes) or if staff feel the resident should stop due to showing signs of fatigue or safety issues (speed slows, gait becomes unstable).
- **Walk in groups;** the extra company may motivate some residents and encourage social interaction. (For more on this, see the **previous section**)
- **Forego walking if the resident feels sick or is in pain.** A registered nurse should assess these residents for possible treatment.
- **Reassess residents whose walk times decline** consistently over a period of days. These residents should be assessed by a registered nurse or their physician to determine the cause for the decline in function.

CNAs can use our walking log to record the outcomes of each daily session. See the walking log form.

## YOUR ASSIGNMENT

This assignment will have to wait until just before your facility launches its walking program. At that time, just prior to launch, gather the CNAs who are assigned to walk with residents. Give each a copy of our walking tips (see the previous page) along with a copy of the *walking log* to review and then discuss as a group. Does everyone understand their assignment? Does anyone have additional suggestions?

## REFERENCES

1. MacRae PG, Asplund LA, Schnelle JF, Ouslander JGF, Abrahamse A, and Morris C. (1996). A walking program for nursing home residents: Effects on walk endurance, physical activity, mobility, and quality of life. *Journal of the American Geriatrics Society*; 44:175-180.
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## Step 4: Monitor the Program

Learn three methods for monitoring the walking program so that its beneficial results are sustained.

### **FAILURE TO MONITOR CAN UNDERMINE THE PROGRAM**

We know from past experience that the image of residents and nurse assistants (CNAs) happily strolling together will likely fade unless supervisors regularly monitor the walking program. In the absence of quality control assessment, CNAs may backslide and fail to consistently implement the protocols for a new program.

Studies in other fields have shown that old habits are hard to break and new ones are hard to maintain if you don't get timely feedback about how you're doing, including reinforcement for doing things right and recommendations for improvement if you're doing things wrong. This feedback loop is a hallmark of continuous quality improvement programs. Creating such a feedback loop is the purpose of this step.

### **USE BUT DON'T RELY SOLELY ON CNA REPORTS**

Start by collecting program assessment data.

The **walking logs** completed by CNAs should tell you almost at a glance whether residents are complying and improving their mobility with the walking program.

The log includes a column for recording the total minutes each resident walks in a given day. Scan the column to see whether walk times for a particular resident are gradually increasing; holding steady; or declining,

which would signal the need for a reassessment.

Data from the walking logs can also be used to calculate compliance rates (what percentage of days in a given period did residents walk?) and identify reasons why residents may have refused to walk (useful for improvement purposes).

We recommend collecting and reviewing walking logs every two weeks. That's roughly how much walking activity CNAs can record on our one-page log.

As informative as they may be, **DO NOT** solely rely on the CNAs' written logs of walking activity to evaluate the program. In several studies, we found that CNAs consistently recorded care that they in fact never provided (1). In fairness to the CNAs, we believe they did this largely because they truly lack the time required to provide the multitude of services that we—employers, regulators, residents, family members and friends—expect them to provide. But with performance expectations continuing to exceed most nursing homes' staff resources (2), it's best to use CNA reports only in conjunction with data gleaned from other assessment strategies, such as resident reports or direct observations.

### **CONDUCT DIRECT OBSERVATIONS**

With walking programs, direct observations are a feasible evaluation strategy, especially if there is an established walking schedule and/or supervisory staff are aware of residents' preferred walking times. If you have established a set walking schedule for residents (e.g., to/from the dining room for meals), a supervisor should be able to stroll

through the halls at specified times and see CNAs and residents walking together.

This type of monitoring works best if it too follows a schedule. Keep in mind that more frequent “control checks” are needed at the start of the program, when new routines are being developed. If all goes well, you should be able to cut back on the number of observations needed to maintain consistency and quality of service. Start with twice-weekly control checks; after 3-4 weeks you may be able to reduce observations once a week, and possibly once every two weeks.

Here is our procedural recommendation:

- Each week, a nurse supervisor should randomly (pull them out of a hat) select two days to conduct observations.
- The supervisor then consults the walking schedule to identify which residents should be walking at what times on the selected days.
- At those times, on those days, the supervisor walks through the hallways that serve as walking routes for the participating residents. He or she notes whether the residents are indeed walking as scheduled.
- The supervisor records observation results in our observation log.
- The whole process should take only a few minutes each day.

### **CONDUCT RESIDENT INTERVIEWS**

You can also monitor the walking program through periodic interviews with participating residents. Most residents, even those with moderate-to-severe cognitive impairments,

can reliably report on their care (3,4). They can tell you whether in fact they received it, they can tell you if they liked it, and often they can tell you how to improve it. All you have to do is ask them: “Has someone helped you to walk today?”, “How many times each day does someone help you to walk?”

Resident interviews, even short ones, are more time consuming to conduct than observations described above. We recommend that a supervisor should try to interview all participating residents individually at some point in the first month of the program. This will allow each resident to give feedback that will help you create a more responsive program. Thereafter, we recommend repeating interviews during the residents’ MDS reassessments.

Keep the interview short and simple. Follow our protocol for conducting resident interviews, presented in the **Quality-of-Life Assessment Module**.

Sample interview questions include:

- Did someone help you to walk today?
- What would make your walk more enjoyable?

Be sure to record responses. Our resident interview protocol includes suggestions for interpreting and reporting responses.

### **CONDUCT BOTH**

We strongly recommend that you conduct both observations and resident interviews. The first will tell you objectively whether the walking program is being implemented as planned. The second will tell you subjectively, from the residents’ perspective, how well the program is being implemented

and what could be changed to make it better.

## **COMPARE RESULTS TO CNA REPORTS**

You can compare results from the observations and resident interviews with information in the CNAs' written logs to identify discrepancies. These may indicate areas for improvement or further training. A CNA's log may also explain why walking assistance was not provided on a particular day (e.g, resident did not feel well).

## **ANALYZE RESULTS**

With all your program assessment data in hand, ask yourself this question: Is the program working as expected? This, of course, raises several related questions:

- Are CNAs walking with residents as scheduled?
- Are residents consistently agreeing to walk?
- Are walk times increasing or at least holding steady?
- Are CNAs accurately completing the walking logs?
- Is the program meeting resident preferences for walking?

If you identify a problem in any of these areas (look for the "no" answers) you may need to investigate further before you can resolve it. Often a meeting with the CNAs can help clarify and correct problems.

## **SHARE RESULTS WITH STAFF**

For best results, complete the feedback loop by sharing results from the walking logs, direct observations, and resident interviews with the CNAs who perform the most work in this program. As we noted earlier, staff members need feedback to help them

establish new work routines. Simply posting the percentage of participating residents who were observed walking during control checks each week, for example, will enable nurse aides to make connections between their work and the impact it has on their residents. It also communicates to the nurse aides that you, as a supervisor, value the walking program and their input about how the program could be made better.

If these direct care providers can see tangible evidence of the walking program's benefits, they are less likely to view the program as an additional burden and more likely to work to sustain its positive effects.

Sharing performance results also gives CNAs the opportunity to help supervisors correct any problems that arise. Often the CNAs are the first to know if a resident's status has changed or if there's been a break-down in the work process. Involving these staff members in improvement efforts will also help strengthen their commitment to the program.

Another way to complete the "circle of communication" is by presenting and discussing program performance results at in-service trainings and during regular staff meetings. We have discovered in our recent work that brief meetings (less than 15 minutes) once a week that are focused specifically on a new program are effective for on-going training and management (feedback) purposes.

Also consider rewarding CNAs for consistently good results - recognition as employee of the month, a staff pizza party for outstanding performance, a gift certificate to a local restaurant—these efforts, again, communicate to the staff that their job role in the program is valued.

The next section presents an exercise intervention for incontinent residents.

## **YOUR ASSIGNMENT**

Browse through our protocol for designing and conducting *quality-of-life assessment interviews* with nursing home residents so that you are better prepared to implement this fourth step in your walking program.

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# Functional Incidental Training (“FIT”)

Follow these five steps to implement an exercise program aimed at the 50-60% of long-stay residents who are incontinent. The program is designed to work with severely cognitively impaired residents.

Step 1: Understand your choices

Step 2: Provide incontinence care

Step 3: Offer exercise

Step 4: Implement time-saving strategies

Step 5: Monitor the program

## Step 1: Understand your choices

Learn about your options for offering regular exercise opportunities to very frail nursing home residents.

## “FIT” FOR FRAIL RESIDENTS

For ambulatory residents there’s our walking program. For almost everyone else, especially incontinent residents, there’s FIT. “FIT” stands for Functional Incidental Training, and it combines low intensity exercise with scheduled toileting as a means of improving continence as well as mobility, strength, and endurance among frail, incontinent nursing home residents.

The special features of FIT are several:

- **Targets the very frail.** It is designed for the more than 50% of nursing home residents who are incontinent of urine, many of them with severe cognitive impairment, and all of them physically inactive and deconditioned, with a high risk for hospitalization. We know of no other exercise program that has proven effective with such an impaired population.

- **CNAs implement it.** It is designed to be implemented by certified nurse assistants (CNAs), rather than higher-cost professionals such as physical therapists, although restorative nurse aides could supplement CNAs in the delivery of FIT.
- **Combines daily activities.** To further reduce time costs, it maximizes efficiency by integrating one daily care routine with another. CNAs are normally in contact with incontinent residents throughout the day to provide toileting assistance. This daily care activity offers a time-efficient opportunity for residents to practice other functional daily activities such as walking, standing, and transferring—activities featured in FIT.
- **Distributes exercise.** FIT spreads exercise over the course of a day, as opposed to offering it in a single session. Providing several brief opportunities to exercise reduces the risk of injury for these frail residents, many of whom would not be able to sustain increased activity during more traditional, single exercise sessions of 30-45 minutes in the context of physical therapy sessions. Brief sessions throughout the day coupled with other care routines (standing, transferring, toileting, walking) also make FIT more manageable in terms of staff time.
- **Proven effective.** Perhaps most importantly, it has been shown to improve or maintain both physical activity and mobility endurance in extremely frail residents. These findings come from two randomized controlled trials—the gold standard for research studies—which also found that the comparison group, which did not receive FIT, declined in

their functional abilities (1,2). Did we also mention that FIT participants improved their continence status too?

## **FIT OVERVIEW**

But we'll be honest with you: Notwithstanding its benefits and cost-efficient design, FIT still takes considerably more time to administer than usual care, and this can be a big barrier to its implementation.

Let's look briefly at how FIT works, then discuss time management.

FIT is designed to be implemented four times daily, approximately every two hours, between 8:00 a.m. and 4:00 p.m., five days a week. The procedure is as follows:

- During each of the four daytime care episodes, CNAs prompt incontinent residents to toilet, and provide the necessary care for incontinent episodes (changing). During incontinence care and toileting activities, CNAs encourage residents to sit-to-stand and transfer as independently as possible (providing supervision, verbal instruction, minimum physical assistance)
- Before or after this incontinence care, CNAs encourage residents to walk, or if nonambulatory, to wheel their chairs and to repeat sit-to-stands up to eight times.
- During one episode per day, each resident, usually while in bed, is given upper body resistance training (arm curls or arm raises) and/or range-of-motion exercises.
- Before *and* after each care episode, residents are offered beverages to increase their daily intake of fluids,

preferably a choice among a variety of fluids, such as assorted juices (3).

How long does all this take? Approximately 20 minutes per resident per care episode when we count travel time plus the time needed to provide both exercise and incontinence care (1,2). Here's the breakdown: 3 minutes to locate the resident and transport them to/from their room for incontinence care, 7 minutes for incontinence care (if the resident uses the toilet); 10 minutes for exercise. We also know, from an eight-month evaluation during which we implemented FIT in four nursing homes, that on average, residents participate in three of the four FIT sessions per day (1,2). So, it takes about an hour a day per resident to implement FIT.

## **FIT VERSUS GROUP EXERCISE**

An hour per resident per day! That's too much, you balk. And we agree, it's a lot. But we can't figure out how to reduce the time costs any further, and as we stated earlier, we know of no other exercise intervention that works as well, or just plain works at all, with such a frail, cognitively impaired population.

On the bright side, consider that FIT offers residents not only exercise, but also incontinence care, which your CNAs need to provide in any case. As a result, it not only increases mobility and physical activity, but also keeps residents drier.

On the alternative side, it's worth considering group exercise programs. Some of these have been shown to work with more ambulatory, less cognitively impaired residents (4). In our experience, however, "group exercise" for residents with severe cognitive impairments is a misnomer. Yes, you can gather these residents in a

group, but they are unlikely to accomplish much unless you work one-on-one with each person.

Bear in mind that, while group exercises are more time-efficient than FIT, they are still time-consuming. Figure that sessions for groups of about 10 fairly ambulatory residents should be offered 3-5 times per week, with each session lasting 30-45 minutes. This does not include time to get residents to/from the place they need to be for exercise, which as we've seen in the FIT breakdown, can add up quickly. Also consider that these exercise-only sessions do not include toileting assistance for incontinent residents.

## **AN ONGOING INDUSTRY CHALLENGE**

That we and other long-term-care researchers have met with only qualified success in designing effective and feasible exercise programs for frail residents reflects two ongoing challenges in the nursing home industry.

The first is the very frailty of this population. Even when offered FIT, many of these impaired residents will not regain their ability to function independently and safely. Most will continue to need staff assistance and supervision. Thus, this program, and probably others similar to it, cannot be expected to pay for themselves down the line through offsets in labor costs.

Second, understaffing in many nursing homes presents an almost insurmountable barrier to translating many efficacious clinical interventions into everyday care practice. We as a nation need to take into careful consideration the resources needed to meet the standards of care we expect for our rapidly growing, frail older population.

That said, we're left with doing the best we can in an imperfect long-term-care system. The pages that follow present instructions for implementing FIT. Along the way, we'll identify trade-offs you can choose between to provide the best care possible given your facility's resources.

## **YOUR ASSIGNMENT**

Consider the pros and cons of group exercise versus the FIT intervention. Now consider your facility's resident case mix. Which type of exercise program seems most feasible to implement with the residents in your facility? Would it work to offer both types for different groups of residents?

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## Step 2: Provide incontinence care

Learn how to conduct the incontinence care component of the FIT program.

### IDENTIFY INCONTINENT RESIDENTS

FIT is designed for residents who are incontinent of urine. More specifically, it's for incontinent residents who receive some type of staff toileting assistance to help them stay dry. This means, of course, that these residents already have been, or should have been, assessed and treated for any transient causes of urinary incontinence.

If any incontinent residents haven't yet been assessed by a physician, they should be, for it is possible that their incontinence can be treated. Step 1 of our incontinence management training module outlines the assessment process. You may want to review this section to make sure your facility is covering all the bases:

From this point on, we'll assume that you've identified all incontinent residents who need some type of staff assistance to stay dry (or drier).

### PROVIDE REGULAR TOILETING ASSISTANCE, PREFERABLY PROMPTED VOIDING

FIT follows best practice guidelines for incontinence care in that it calls on nursing home staff to provide incontinent residents with toileting assistance every two hours during the daytime (roughly 8:00 a.m. to 4:30 p.m.). Toileting assistance can take a number of different forms. It can mean checking and changing adult garments; habit training; scheduled toileting; or prompted-voiding.

Of these various management options, only prompted-voiding has been shown to significantly improve continence in long-stay nursing home residents with varying levels of cognitive impairment. This is one reason we strongly recommend that you provide prompted-voiding as part of the FIT program.

You can review prompted-voiding procedures in Step 2 of our incontinence management training module.

### PROMPTED VOIDING VERSUS OTHER OPTIONS

Yes, you can use FIT with the other toileting care routines, as long as that care is offered every two hours. But while you're at it, why not take advantage of the opportunity to provide the most effective care available to your residents?

If you're concerned about how much time prompted-voiding takes, we can offer some assurances. On average, it takes about 7 minutes to provide prompted-voiding to a single resident. That's about 12 *seconds* longer than it takes to provide scheduled-toileting. And it's about a minute and a half longer than it takes to check-and-change a resident without toileting assistance. In other words, you won't save much time per episode of care by implementing one of the less effective toileting interventions.

### PROMPTED-VOIDING (PV) ADVANTAGE: TARGETING PROCEDURES

And there are additional advantages to offering prompted-voiding (PV). One is that we have developed a simple, valid procedure for identifying residents who are responsive to prompted-voiding. You can review it in Step 2 of our incontinence management training module.

Here's the synopsis: Provide prompted-voiding to incontinent residents for a few days, and then analyze the results. Those who use the toilet (or bedpan or urinal) appropriately at least two-thirds of the time are "responsive" to PV and should continue to receive it every two hours during the day; those who don't are "unresponsive" and can be placed on check-and-change programs. The rationale behind this "trial run" approach is simple common sense: Residents either respond to prompted-voiding, or they don't, and there is no reason to expect different results unless there is a significant change—for better or worse—in the resident's condition (e.g, acute illness, hospitalization, urinary tract infection, constipation).

Our studies show that between 25% and 40% of incontinent residents will respond to prompted-voiding, with a reduction in their incontinence frequency from three to four episodes per day to one per day (1,2).

This ability to identify responders and non-responders enables staff to use their time more effectively and efficiently. They don't waste time trying to toilet some residents who are unresponsive to their help while better candidates go without consistent, daily assistance.

To the best of our knowledge, comparable valid targeting procedures do not exist for any of the other incontinence management strategies.

### **PROMPTED-VOIDING (PV) ADVANTAGE: PROGRAM MONITORING PROCEDURES**

Another advantage to prompted-voiding is that there is a tested procedure for monitoring its results. We discuss this in more detail later on (see Step 4), but basically, if you don't continuously monitor

program implementation, there is a good chance that the program procedures will be compromised and its positive effects diluted. As a general rule, nursing home programs that are implemented in residents' rooms at various times throughout the day are difficult to monitor through objective means. It's not feasible, for example, for supervisors to conduct regular observations of care provision. Prompted-voiding programs, however, are the exception to this rule.

With prompted-voiding programs, supervisors can conduct periodic control checks that allow them to continuously monitor care provision. We tell you how to conduct these quality control checks and analyze the results in Step 4 of our incontinence management module:

These control checks won't tell you whether or how well nurse aides are carrying out the exercise component of FIT. But they do allow you to assess the other key component (toileting assistance). And if this care activity is (or is not) being accomplished, then that's some small assurance that the other component, exercise, also is (or is not) being accomplished.

### **ONE LAST TIME...**

Going forward, we will assume that your facility is committed to providing FIT participants with some form of toileting assistance every two hours during the daytime on at least five days per week. We've said it various ways throughout this section, but it bears repeating one last time: There are distinct advantages to choosing prompted-voiding as the form of toileting assistance your program provides. (Remember: most residents who are *not* responsive to prompted-voiding are placed

in check-and-change programs.) You can read more about this toileting strategy in our incontinence management module.

## **YOUR ASSIGNMENT**

Take a few minutes to review our prompted-voiding protocol and the incontinence management training module.

- view or print the *prompted voiding protocol*.
- *incontinence management training module*.

Both can be found at [www.vanderbiltcqa.org](http://www.vanderbiltcqa.org)

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### Step 3: Offer exercise

Learn how to conduct the exercise component for the FIT program.

#### FIT'S EXERCISE COMPONENT

Let's review. We now know that FIT targets incontinent residents and is intended to be implemented by certified nurse aides (CNAs) every two hours, roughly between 8:00 a.m. and 4:30 p.m., five days per week. This schedule allows for four care "episodes" each day. During each episode, CNAs provide residents with toileting assistance, preferably prompting residents to toilet and changing those who need it. That's the incontinence care component of FIT.

The exercise component includes the following:

- Walking or wheeling
- Sit-to-stands and transfers
- Arm curls, arm raises or range-of-motion

These exercises emphasize specific functional skills involved with toileting and other activities of daily living.

Let's discuss procedures for each exercise, starting with walking and wheeling.

#### WALKING OR WHEELING

- Use our walking performance test to identify residents capable of walking. A *licensed nurse* should conduct this assessment during the resident's first FIT session and share results with the appropriate CNAs, letting them know which residents can walk (and what level of assistance they require to do so) and which are completely non-ambulatory (unable to walk at all).

- Based on the nurses' assessment findings, CNAs should encourage residents to walk with the appropriate level of assistance (e.g., supervision, verbal instructions, some physical help and assistive devices) or, if non-ambulatory, to wheel their chairs during each of the four care episodes.
- Residents may walk or wheel their chairs either before or after receiving incontinence care. Ask the resident for his or her preference.
- To start, encourage residents to walk or wheel their chairs for one to five minutes per session. Prompt them to gradually (over several weeks) increase their mobility time until they reach a maximum of 10 minutes per session.
- See Step 3 of our walking program for tips on motivating residents to stay mobile. These suggestions are geared toward encouraging residents to walk, but most apply equally well to encouraging residents to wheel their chairs. See also our tips for improving wheelchair mobility.
- Record the results of each session in our FIT log.

#### SIT-TO-STANDS

- CNAs should encourage all FIT participants to repeat sit-to-stands during each care episode (moving from a complete sitting position to a full standing position with minimum staff assistance to build lower body strength and maintain ability to stand).
- Residents may engage in this exercise either before or after receiving incontinence care, and before or after

walking or wheeling. Ask the resident for his or her preference.

- To start, encourage residents to repeat 1-4 sit-to-stands. Prompt them to gradually (over several weeks) increase the number of repetitions until they reach a maximum of eight sit-to-stands per session.
- Offer residents the minimal physical assistance needed to complete each sit-to-stand. Follow the procedure described in our *graduated sit-to-stand protocol*.
- Record results in the *FIT log*.

### **ARM CURLS AND RAISES**

- During one session per day, CNAs should prompt participating residents to repeat either arm curls or arm raises.
- This upper body resistance training is usually best accomplished while the resident is in bed. Thus, CNAs should encourage residents to do these exercises either before or after incontinence care and the other exercises are completed.
- Arm curls or raises can be done during any of the day's four sessions. We recommend that CNAs gently prompt each resident during the first session and at each subsequent session in turn until the resident completes the exercise. Light hand-held weights can be used for this exercise or therabands (rubber bands that stretch). Ask physical therapy and restorative nurse aides for available equipment and initial help in assessing the resident's abilities. Each week, try to increase their goal for number of repetitions and resistance. For example,

start with 4-8 repetitions each session and increase to 8-12 repetitions each session. Begin with the lightest hand-held weight(s) or the theraband with the least resistance and increase modestly (2-5 pounds) each week once the resident can do the maximum number of repetitions (12 per arm/session) comfortably.

### **OFFER FLUIDS**

Before *and* after each care episode, CNAs should offer residents beverages such as water or juices. This twice-per-session fluid prompting is very effective in significantly increasing fluid intake and improving hydration status in this frail population. So, if done correctly, the FIT intervention improves: urinary continence, hydration AND physical functioning.

For best results, offer residents a choice from a variety of beverages, ideally beverages not typically served during meals (e.g, cranapple, cranraspberry). This strategy results in fewer refusals to drink and increases fluid consumption (1).

Studies show that, while the majority of nursing home residents are at high risk for dehydration, few facilities offer fluids between meals. In two separate studies, we found that staff offered residents between-meal beverages less than once per day on average, including oral liquid nutrition supplements (2,3).

Many workers erroneously believe that residents will request fluids, if thirsty, or retrieve a glass of water for themselves from their bedside pitcher. But few residents do this. One reason they don't is that the thirst sensation declines with age, so many older adults may not recognize that they are

thirsty even when they are. In addition, cognitive impairment and depression can impair a resident's ability and motivation to seek out fluids. As a result, it is critical that staff not only offer fluids but also provide encouragement to residents to drink.

For more information about increasing residents' fluid and food intake, see our weight loss prevention training module at our website [www.vanderbiltcqa.org](http://www.vanderbiltcqa.org)

## CAUSES FOR CONCERN

Special circumstances warrant special attention:

- **Forego exercise if the resident feels sick or is in pain.** When this happens, CNAs should report their findings to a registered nurse so he or she can assess the resident for possible treatment. CNAs should still provide the resident with toileting assistance and offer fluids.
- **Report to the nurse any resident whose performance declines** consistently over a period of days. CNAs should report a consistent decline, or repeat refusals, in any of the exercises: walking, wheeling, sit-to-stands, arm raises, or arm curls. The nurse or a physician should assess the resident to determine possible causes for the decline in function.

## YOUR ASSIGNMENT

- Print our walking performance assessment and use it to assess a handful of incontinent residents. Which of these residents are ambulatory enough to walk in the FIT program? Which should be encouraged to propel their wheelchairs?

- Print our graduated sit-to-stand protocol and use it to prompt a few residents to repeat this exercise. Were residents able to complete the exercise? How many repetitions were they able to complete?

## REFERENCES

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## Step 4: Implement Time-Saving Strategies

Implement these time-saving strategies to help your facility maintain the FIT program and maximize benefits for frail nursing home residents.

### LACK OF STAFF CAN HAMPER IMPLEMENTATION

Having reviewed Step 1 (*Identify the problem, the solution*), Step 2 (*Provide incontinence care*), and Step 3 (*Offer exercise*), you are now in a position to make informed decisions about how to deploy the one resource that can make or break the FIT program: your staff.

Lack of staff time is THE biggest barrier to implementing the FIT program. How big? We estimate that in a nursing home with a staffing ratio of 10 residents to one certified nurse aide (CNA), the CNAs would need 60 minutes of every daytime hour to provide FIT to all eligible incontinent residents. In other words, they wouldn't have time for any other duties. Given that this resident-to-CNA ratio is typical of the industry, FIT clearly is not going to work in the majority of facilities without modification.

Below, we offer two suggestions. The first will make the biggest difference in nursing homes with staffing levels that approach an ideal: five residents to one CNA. This first suggestion will also help in lower-staffed facilities, where the daytime ratio reaches seven or more residents to one CNA, but is unlikely to be sufficient. In these facilities, consider also the more drastic change outlined in our second suggestion.

## 1. REDUCE NURSE AIDE WORKLOADS IN OTHER AREAS

Assign time-consuming tasks that are typically the responsibility of CNAs to non-traditional care providers such as volunteers, social service staff, even administrative personnel, so that CNAs have more time to implement FIT. For example, some mealtime tasks and between-meal snack deliveries can be handled by non-traditional staff. See our weight loss prevention module, especially *step 3*, for tips on redeploying staff at mealtimes.

## 2. REDUCE THE NUMBER OF "FIT" PARTICIPANTS

If, after shifting some of their duties, CNAs still lack sufficient time to implement FIT, then reduce the number of residents who participate in the program. If necessary, reduce the number of participants one by one until each CNA on the daytime shift is responsible for only one FIT participant.

This may sound like an insignificant number but it adds up. Consider this scenario: In a 40-bed facility, an estimated 20 residents will be incontinent and thus eligible for FIT. If the facility is staffed at 10 residents to one CNA during the day, then four CNAs are available to provide FIT to four residents, or one-fifth of all eligible residents. Yes, this approach excludes residents who could benefit from FIT. But despite this serious drawback, it is ethically and clinically preferable to foregoing the intervention altogether, a strategy that in most facilities means *none* of these frail residents will get exercise to prevent further decline.

How do you decide who makes the cut? There are no hard and fast rules to follow here, so we let reason guide us to this recommendation: Target services first to

those residents who stand to lose the most functionality if denied regular exercise. In our clinical judgment, these are residents who are on the verge of losing their ability to walk. “They’re wobbly,” one of our researchers observed. “They can still bear weight, but they can’t walk safely without assistance.” They’re not the most impaired residents, nor the least impaired; they’re between these two extremes.

For these residents, their FIT-ness goal should be to maintain their walking ability.

You can use our standardized walking performance assessment to objectively select these participants.

## **YOUR ASSIGNMENT**

- Find out your facility’s resident-to-CNA ratio during daytime hours (7am to 3pm shift). Then estimate the percentage of residents in your facility who are incontinent of urine.
- If both the staffing ratio and percentage of incontinent residents are at or above industry standards (that is, about eight residents to one CNA and an incontinence prevalence rate of 50%), then your facility should reduce the number of FIT participants. With a better staffing ratio and/or a lower percentage of incontinent residents, a cutback in the number of FIT participants is less necessary.
- Let us know how your facility fares. Would you have to reduce the number of FIT participants or not?

## Step 5: Monitor the program

Learn three methods for monitoring the FIT program so that its beneficial results are sustained

### **FAILURE TO MONITOR CAN UNDERMINE THE PROGRAM**

The procedures for monitoring the FIT program are similar to those for monitoring our walking program (see Step 4 of the walking program). The rationale for ongoing program assessment is virtually the same as well: That is, in its absence, certified nurse aides (CNAs) may backslide and fail to consistently implement the FIT protocols.

Studies in other fields have shown that old habits are hard to break and new ones are hard to maintain if you don't get timely feedback about how you're doing, including reinforcement for doing things right and recommendations for improvement if you're doing things wrong. This feedback loop is a hallmark of continuous quality improvement programs. Creating such a feedback loop is the purpose of this step.

### **USE BUT DON'T RELY SOLELY ON CNA REPORTS**

Start by collecting program assessment data.

The FIT daily *logs* completed by CNAs should tell you almost at a glance whether residents are improving their mobility, strength, and endurance with the FIT program. Our log includes columns for tracking daily performance: the total minutes each resident walks or wheels, the number of sit-to-stands, and the number of arm curls or raises completed, as well as refusal rates.

We recommend collecting and reviewing FIT logs every two weeks. A licensed nurse /

supervisory-level staff member should scan the logs to see whether the numbers for a particular resident are gradually increasing; holding steady; or declining, which would signal the need for a reassessment.

Data from the FIT logs can also be used to calculate compliance rates. On what percentage of days in a given period did residents walk? Complete sit-to-stands? Do arm curls or raises? On what percentage of sessions in a given day did residents do some form of exercise? Information about compliance gives you insight into whether residents value the program.

As informative as they may be, DO NOT solely rely on the CNAs' written logs of exercise and incontinence activity to evaluate the FIT program. In several studies, we found that nurse aide documentation of care provision was inconsistent with the care residents actually received (1). In fairness to the CNAs, we believe they did this largely because they truly lack the time required to provide the multitude of services that we—employers, regulators, family, and friends—ask them to deliver. But with performance expectations continuing to exceed most nursing homes' staff resources, it's best to use CNA reports only in conjunction with data gleaned from other assessment strategies such as resident reports, direct observations, or, in the case of prompted voiding, control checks.

### **CONDUCT WETNESS CONTROL CHECKS**

We developed, tested, and validated a standardized procedure that you can use to conduct continuous quality control checks of your prompted-voiding program.

The control checks (which require about 15 minutes a week to complete) allow you to compare the percentage of incontinent residents found wet at any given point in time to the percentage who *should be* wet if the prompted-voiding program is working as expected. If the “actual” percentage exceeds the “expected” percentage, there’s a problem, and it needs further analysis if you intend to resolve it. Typical problems stem from changes in a resident’s status or break-downs in the prompted-voiding work process.

If your facility offers prompted-voiding to FIT participants, then a staff nurse should take the time to conduct weekly control checks. These weekly control checks are the best method for ensuring the integrity of incontinence care.

## **CONDUCT RESIDENT INTERVIEWS**

You can also monitor the FIT program through periodic interviews with participating residents. Many residents, even those with cognitive impairment, can reliably report on their care (2-4). They can tell you whether in fact they received it, they can tell you if they liked it, and often they can tell you how to improve it. All you have to do is ask them.

Resident interviews, even short ones, are more time-consuming to conduct than quality control checks. Thus, we recommend that a supervisor should try to interview all participating residents individually at some point in the first month of the FIT program. This will allow each resident to give feedback that will help you create a more responsive program. We also recommend repeating interviews during the residents’ MDS reassessments.

Keep the interview short and simple. Follow our protocol for conducting resident interviews, presented in the Quality-of-Life Assessment Module.

Sample interview questions include:

- Did someone help you to walk today?
- How many times did you walk today?
- Did someone help you to the toilet today?
- How many times were you helped to the toilet today?

Be sure to record responses. Our resident interview protocol includes suggestions for interpreting and reporting results.

## **COMPARE RESULTS TO CNA REPORTS**

You can compare results from the resident interviews with information in the CNAs’ written FIT logs to identify any reporting discrepancies. These may indicate areas for improvement or further training. A CNA’s log may also explain why FIT was not provided on particular days/times (e.g., resident did not feel well or was out with family).

## **ANALYZE RESULTS**

With all your program assessment data in hand, ask yourself this question: Is the FIT program working as expected? This, of course, raises several related questions:

- Are CNAs consistently offering FIT participants incontinence care and exercise every two hours?
- Are residents complying with the exercise?
- Is resident performance improving or at least holding steady?
- Are CNAs accurately completing the FIT logs?

If you identify a problem in any of these areas (look for the “no” answers) you may need to investigate further before you can resolve it. Often a meeting with the CNAs can help clarify and correct problems.

## SHARE RESULTS WITH STAFF

For best results, complete the feedback loop by sharing results from the FIT logs, wetness control checks, and resident interviews with the CNAs who perform the lion’s share of the work in this program. As we noted earlier, staff members need feedback—both good and bad—to help them establish new work routines. Simply posting the wetness control checks each week, for example, will enable nurse aides to make connections between their work and the impact it has on their residents.

If these direct care providers can see tangible evidence of the benefits of the FIT program, they will be less likely to view the intervention as an extra burden and more likely to work to sustain its positive effects.

Sharing performance results also gives CNAs the opportunity to help supervisors correct any problems that arise. Often the CNAs are the first to know if a resident’s functional status has changed or if there’s been a break-down in the work process. Involving these staff members in improvement efforts will also help strengthen their commitment to the program.

Another way to complete the “circle of communication” is by presenting and discussing program performance results at in-service trainings and during regular staff meetings and care planning efforts. We’ve found in our recent work that brief (less than 15 minutes), weekly meetings focused

specifically on a new program are effective for training and management purposes.

And finally, here’s a recommendation that bears repeating: Reward CNAs for consistently good results. Recognition as employee of the month, a staff pizza party for outstanding performance, a gift certificate to a local restaurant—they can’t hurt.

## YOUR ASSIGNMENT

Browse through our protocol for designing and conducting quality-of-life assessment interviews with nursing home residents so that you are better prepared to implement this fifth step in your FIT program.

## REFERENCES

1. Schnelle JF, Bates-Jensen BM, Chu L & Simmons SF. (2004). Accuracy of nursing home medical record information about care process delivery: Implications for staff management and improvement. *Journal of the American Geriatrics Society*, 52(8):1378-1383.
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## Frequently Asked Questions

**Q: Many of our residents cannot walk but could get around in their wheelchairs more than they do. How can we encourage residents to propel their wheelchairs more?**

**A:** Of the estimated 1.8 million nursing home residents in the United States, more than half are incapable of independent ambulation. For these residents, wheelchair propulsion is their only means of mobility. Wheelchair use also increases feelings of independence and fosters a sense of physical and emotional well-being, say residents (1). But for all these advantages, few nursing homes formally assess or evaluate residents for a wheelchair, and too often the staff assumes that wheelchairs are meant to be pushed, not self-propelled (2). The upshot is that most residents in wheelchairs rarely take those chairs for a spin (2). But you can help increase their mobility with a few easy-to-implement strategies:

- Residents who need or want to use a wheelchair should be assessed by a physical therapist or occupational therapist for the most appropriate type of wheelchair.
- Customize the wheelchair so that it fits the resident. Consider seat width, back cushions, ankle positioning aides, leg-rest panels, foot supports, headrests, and head supports.
- Make sure the resident can reach and release the chair's brakes. A PVC pipe can be fitted to a chair's brake as an extender so that the brake is easier to reach and release.

- Show residents how to use their wheelchairs. Demonstrate how to operate the brakes and foot pedals, where to place their hands and legs, how to use their hands and/or legs to propel the chair, and how to get up from and sit back down in the wheelchair.
- Pay attention to residents' safety behaviors. For example, does the resident lock the wheelchair and move the foot pedals before standing?
- Regularly check wheelchairs for defects and, if found, promptly repair them.
- Label each wheelchair so that it stays with the right resident.

**Q: How can we tell if residents are spending too much time in bed?**

**A:** Try this: Stroll down your facility's hallways at 10 a.m. and again at 4 p.m. on the same day. Each time, note the names or room numbers of residents whom you observe in bed. Compare the two lists to identify those residents observed in bed at both times.

Our research indicates that these residents spend an estimated 16 or more hours a day in bed (3). And that's too much, even for very frail residents. Our research also indicates that the more time residents spend in bed during the day, the more they sleep during the day, the more socially isolated they are, and the less they eat (3). These findings are in keeping with other studies showing that excessive time in bed is associated with detrimental outcomes, including under-nutrition, pressure ulcer

development, pneumonia, and urinary incontinence.

**Q: Is it likely that residents who participate in the FIT program will eat more as a result of being more active?**

A: We thought it might, but upon examination, it didn't. For this study, we enrolled 89 incontinent residents in two nursing homes (4). Half the residents participated in the FIT program, receiving regular incontinence care and exercise. The other residents, the control group, received usual care.

At the end of 32 weeks, the FIT group showed significant improvements or maintenance across all measures of daily physical activity, functional performance, and strength compared to the control group. But there were no differences between the two groups in the amount of food and fluids consumed. Both groups consumed an average of 55% of all meals, with no change over time.

There was also no change in the frequency of bowel movements in either group. Based on these findings, we believe a feeding assistance intervention aimed specifically at increasing mealtime (and/or between-meal) consumption is likely to be much more effective than physical exercise alone in helping residents maintain and increase weight. Our Weight Loss Prevention Module, presents protocols for a feeding assistance intervention proven effective for increasing daily food and fluid intake and weight in nursing home residents.

**Q: If residents exercise more during the day, will they sleep better at night?**

A: Our research suggests that increased physical activity alone will not improve

residents' nighttime sleep, but exercise combined with a nighttime noise and light abatement program will (5,6).

The noise and light abatement program centered on common sense procedures such as closing doors to residents' rooms, fixing squeaky equipment, turning off unattended TVs and radios (and turning down the volume of those in use), and using table lamps instead of overhead lights when providing incontinence care.

In one study, daytime exercisers who received the nighttime noise and light abatement program were in bed less during the day and showed less agitation than residents who received only the nighttime program (5). A second study showed that an exercise program alone did not improve nighttime sleep for residents (6).

## REFERENCES

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3. Bates-Jensen B, Schnelle JF, Alessi CA, Al-Samarrai NR, Levy-Storms L. (2004). The effects of staffing on in-bed times among nursing home residents. *Journal of the American Geriatrics Society*; 52:931-938.
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6. Alessi CA, Schnelle JF, MacRae PG, et al. (1995). Does physical activity improve sleep in impaired nursing home residents? *Journal of the American Geriatrics Society*; 43: 1098-1102.

## Related Studies

### **Functional Incidental Training, Mobility Performance, and Incontinence Care with Nursing Home Residents**

John F. Schnelle, Priscilla G. MacRae, Joseph G. Ouslander, Sandra Simmons, and Misty Nitta, 1995, in *Journal of the American Geriatrics Society*.

Severely demented, inactive, and physically frail nursing home residents can significantly increase their mobility endurance and physical activity when regularly offered the opportunity to exercise, according to the study reported in this article. The study evaluated an intervention called Functional Incidental Training or FIT, which integrates such low-intensity exercises as walking, wheelchair propulsion, and sit-to-stands with prompted voiding for incontinent residents. Findings showed that the highly deconditioned, cognitively impaired residents who enrolled in the study not only complied with the exercise protocol, completing 75% of all exercise sessions offered four times per day, but also achieved 100% of their individualized exercise goal on 80% of these sessions. In contrast to more traditional, once-a-day exercise programs, this intervention distributed exercise over the course of the day, with brief sessions offered by nurse aides once every two hours in conjunction with incontinence care for the individual. This strategy reduced injury risks from over-exertion and deployed staff more efficiently. Nevertheless, the intervention requires significantly more time to provide than usual care—an estimated 18 additional minutes per resident per day. The authors conclude, “The increased cost of this intervention must be evaluated both in terms of clinical outcomes and by the reality that the target group for this intervention is very frail and will continue to require nursing home care, even assuming an excellent response to the intervention.”

### **Translating Clinical Research into Practice: A Randomized Controlled Trial of Exercise and Incontinence Care with Nursing Home Residents.**

John F. Schnelle, Cathy A. Alessi, Sandra F. Simmons, Nahla R. Al-Samarrai, John C. Beck, Joseph G. Ouslander, 2002, in *Journal of the American Geriatrics Society*, 50:1476-1483.

An incontinence care and exercise intervention called FIT, for Functional Incidental Training, resulted in significant improvements in physical mobility and continence for most residents who received the intervention. The staffing requirements needed to implement the intervention, however, are high and exceed the resources available in most nursing homes. In this randomized, controlled trial, research staff prompted each of 94 intervention residents to toilet every two hours during the daytime, five days a week. Before or after providing incontinence care, staff also encouraged the residents to walk or, if nonambulatory, to wheel their chairs and to repeat sit-to-stands up to eight times. Once a day, each resident was given upper body resistance training (arm curls or arm raises). After 32 weeks of FIT, intervention residents maintained or improved performance on 14 of 15 outcome measures, whereas the performance of the 96 residents in the control group declined. The mean time required to implement the intervention each time care was provided was 20.7 minutes. Consequently, one nurse aide for every five residents would be needed to implement the intervention. Less than 10% of the nation’s nursing homes are staffed at this level. The researchers conclude, “Fundamental changes in the staffing of most nursing homes will be necessary to translate efficacious clinical interventions into everyday practice.”

### **Does an Exercise and Incontinence Intervention Save Healthcare Costs in a Nursing Home Population?**

John F. Schnelle, Kanika Kapur, Cathy Alessi, Dan Osterweil, John C. Beck, Nahla R. Al-Samarrai, and Joseph G. Ouslander, 2003, in *Journal of the American Geriatrics Society*; 51:161-168.

The short answer to the question posed in this randomized, controlled trial is no. Although the intervention, which combines low-intensity exercise with frequent incontinence care, improved functional outcomes for the 98 intervention subjects, it did not reduce the incidence and costs of selected acute health conditions. Thus, the authors conclude, the costs of implementing this labor-intensive intervention would not be off-set by reduced medical care costs. A previous paper reported that a ratio of five residents to one nurse aide would be necessary to implement the intervention and that more than 90% of the nation's nursing homes would have to significantly increase staffing to do so. For the study, intervention subjects received low-intensity, functionally oriented exercises and incontinence care every two hours during the day, five days a week for eight months. A control group of 92 residents received usual care.

### **Effects of an Exercise and Scheduled-Toileting Intervention on Appetite and Constipation in Nursing Home Residents**

Sandra F. Simmons and John F. Schnelle, 2004, in *Journal of Nutrition, Health, and Aging*; 8(2):116-121.

If nursing homes offer incontinent residents daily exercise and frequent toileting assistance will the residents increase their consumption of food and fluids? Findings from this controlled, clinical intervention trial suggest they will not. The study enrolled 89 incontinent residents in two nursing homes. For half the residents, research staff

provided exercise and toileting assistance every two hours, four times per day, five days a week for 32 weeks. The other residents, the control group, received usual care. At the end of 32 weeks, the intervention group showed significant improvements or maintenance across all measures of daily physical activity, functional performance, and strength compared to the control group. But there were no differences between the two groups in the amount of food and fluids consumed. Both groups consumed an average of 55% of all meals, with no change over time. There was also no change in the frequency of bowel movements in either group. The authors suggest that a feeding assistance intervention aimed specifically at increasing mealtime consumption may be more effective than physical exercise in helping residents maintain and increase weight.

### **A Randomized Trial of a Combined Physical Activity and Environmental Intervention in Nursing Home Residents: Do Sleep and Agitation Improve?**

Cathy Alessi, Eun J. Yoon, John F. Schnelle, Nahla R. Al-Samarrai, and Patrice A. Cruise, 1999, in *Journal of the American Geriatrics Society*, 47:784-791.

This study provides preliminary evidence that an intervention combining increased physical activity with improvement in the nighttime nursing home environment improves sleep and decreases agitation in nursing home residents. For the study, participating residents received either an intervention that combines daytime exercise with a nighttime noise and light abatement program or the nighttime program alone. Compared to the second group (n=14), the first group of residents (n=15) slept more at night, were in bed less during the day, and showed less agitation. A previous study showed that the physical activity program alone did not improve nighttime sleep. The authors conclude, "We believe both the

daytime and nighttime aspects of the intervention, rather than a single component, produced the observed changes.”

### **Exercise with Physically Restrained Nursing Home Residents: Maximizing Benefits of Restraint Reduction**

John F. Schnelle, Priscilla G. Macrae, Karen Giacobassi, Holden S.H. MacRae, Sandra F. Simmons, and Joseph G. Ouslander, 1996, in *Journal of the American Geriatrics Society*; 44:507-512.

This randomized, controlled trial evaluated an intervention that was designed to improve mobility in physically restrained residents. The intervention, provided to 35 residents, consisted of walking or wheelchair propulsion, supplemented by rowing exercise three times per week for nine weeks. Intervention residents also practiced behaviors related to safe movement. Compared to the control group (N=37 residents), the exercise group members significantly improved their upper body rowing performance, handgrip strength, and wheelchair endurance, and decreased injury risk factors. There was no evidence that the exercise was associated with negative side effects. Unfortunately, many physically restrained residents were not candidates for the intervention, either because of unresponsiveness or because they were too physically debilitated to participate. In addition, about 30% of the residents who initially consented to participate in the program had to drop out due to death, hospitalization, or transfer from the facility. This attrition rate reflects the extreme frailty of this population.

### **A Walking Program for Nursing Home Residents: Effects on Walk Endurance, Physical Activity, Mobility, and Quality of Life**

Priscilla G. MacRae, Leslie A. Asplund, John F. Schnelle, Joseph G. Ouslander, Allan Abrahamse, and Celee Morris, 1996, in *Journal of the American Geriatrics Society*; 44:175-180.

Can a walking program help deconditioned, cognitively impaired but ambulatory residents increase their mobility, endurance, and physical activity levels? The delayed intervention trial reported in this article found mixed results. The study compared 19 residents in one nursing home who participated in a 12-week walking program to 15 residents in a second nursing home who received social visits as a control measure. Afterwards, all study subjects were offered the opportunity to complete a 22-week walking program. The 12-week program of daily walking at a self-selected pace produced significant improvements in walk endurance capacity, but no changes in physical activity levels throughout the day, mobility, or quality of life. At the same time, there were no negative side effects such as increases in falls or cardiovascular complications attributed to the walking program. Lengthening the program to 22 weeks produced no further significant changes in any outcome measures.

### **Wheelchairs as Mobility Restraints: Predictors of Wheelchair Activity in Nonambulatory Nursing Home Residents**

Sandra F. Simmons, John F. Schnelle, Priscilla G. MacRae, and Joseph G. Ouslander, 1995, in *Journal of the American Geriatrics Society*; 43:384-388.

Nursing homes could encourage very frail, nonambulatory residents to be more mobile by making their wheelchairs more user-friendly and offering them organized practice in wheelchair propulsion. The 65 nonambulatory residents in this study rarely propelled their wheelchairs, although 70%

were physically capable of doing so. Wheelchairs that were either dysfunctional or inappropriately fitted to the residents' size were a major barrier to wheelchair use, affecting 46% of the residents. Additionally, none of the residents could unlock their chairs, either due to difficulty locating the lock or lack of sufficient strength to move the lock. Simple wheelchair modifications can overcome some of these problems, and wheelchair exercise programs, similar to walking programs for ambulatory residents, may lead to increases in endurance, strength, and mobility.

### **The Effects of Staffing on In-Bed Times of Nursing Home Residents**

Barbara M. Bates-Jensen, John F. Schnelle, Cathy A. Alessi, Nahla R. Al-Samarrai, and Lené Levy-Storms, 2004, in *Journal of the American Geriatrics Society*; 52:931-938.

Many nursing home residents spend a potentially unhealthful amount of time in bed, between 15 and 18 hours a day, sometimes more. Why? A low staffing level is the strongest predictor of excessive in-bed times, followed by impairments in residents' functional ability, according to this study. The study also found that the more time residents spent in bed during the day, the more they slept during the day, the more socially isolated they were, and the less they ate.

The study compared nursing homes with low staffing levels—less than 3.4 staff hours per resident per day—to facilities with some of the industry's highest staffing levels—more than 3.7 staff hours per resident per day. Residents in lower-staffed homes were observed in bed an estimated average of 5 hours a day, between 7 a.m. and 7 p.m., versus an estimated average of 3 daytime hours for residents in the high-staffed homes. Given that many residents are put to bed by 7 p.m.—a finding from previous Borun Center research—residents in low-

staffed homes could be spending as much as an average of 17 hours a day in bed.

Eight hundred and eighty-two long-stay residents in 34 nursing homes throughout southern California participated. The authors interviewed residents, observed them at hourly intervals on one day to estimate in-bed time and measure social engagement, monitored mealtimes, and conducted physical performance evaluations to assess residents' ability to stand and bear weight.

The authors point out that letting residents with physical impairments linger in bed could accelerate their decline. And the fact that residents with similar physical disabilities were observed out of bed more frequently in the high-staffed homes suggests in-bed times can be improved.

### **The Minimum Data Set Prevalence of Restraint Quality Indicator: Does it Reflect Differences in Care?**

John F. Schnelle, Barbara M. Bates-Jensen, Lené Levy-Storms, Valena Grbic, June Yoshii, Mary Cadogan, and Sandra F. Simmons, 2004, in *The Gerontologist*; 44(2):245-255.

Nursing homes with a high rate of physical restraint use employ more restrictive care processes, which limit their residents' movements, than facilities that use restraints less often. But findings from the first study to independently evaluate the validity of a nursing home "prevalence of restraint" quality measure also suggest that most long-stay residents spend a potentially unhealthful amount of time in bed. The authors contend that an assessment of residents' physical activity might be a more meaningful measure of care quality than restraint use.

The study examines whether minimal restraint use in a nursing home reflects better care practices. The researchers

compared two groups of nursing homes: eight with scores among the lowest (0-5%) on a quality indicator that measures prevalence of restraint use and six with scores among the highest on this measure (28-48%). Residents were observed in bed more often in the high-restraint homes, yet there was no obvious clinical difference between these residents and those in the low-restraint homes. On all other care process measures, including those related to the management of restraints, exercise, and gait and mobility problems, the study found no differences between the two nursing home groups. In general, all facilities provided care to residents, restrained or unrestrained, less than once every two hours.

The researchers estimate that the typical resident in a high-restraint home spends between 19 and 20 hours in bed each day. That estimate drops in low-restraint homes, but by only an hour a day. These findings suggest that all residents are spending too much time in bed and not enough time engaged in activities that enhance mobility, gait, and balance.

### **Strategies to Measure Nursing Home Residents' Satisfaction and Preferences Related to Incontinence and Mobility Care: Implications for Evaluating Intervention Effects**

Sandra F. Simmons and John F. Schnelle, 1999, in *The Gerontologist*, 39(3):1-11.

This study compared four different interview strategies to measure 111 incontinent nursing home residents' "met needs" related to incontinence and mobility care. In one method—perhaps the most commonly used strategy in nursing homes—residents were asked direct satisfaction questions (e.g., "Overall, are you satisfied with how often someone helps you to walk?"). A second method asked residents about their

preferences for care (e.g., "Would you like for someone to help you walk more often?" "How many times during the day would you like someone to help you to walk?") The last two methods compared resident reports about how often they preferred to receive care to how often they actually did receive care based first on research staff observations (Method 3) and then on their own reports (Method 4). Incontinent residents who passed a simple responsiveness screen (residents were asked to state their name or identify two common items) were interviewed. Each resident was interviewed on two occasions to evaluate the stability of their responses. Results showed that 75% of the residents provided logically consistent responses, a finding that dispels the widespread assumption that only a small subset of cognitively intact residents can provide meaningful information about the care they receive.

Of the four methods tested, the third method proved superior with respect to response stability. Method 1 yielded the most unstable responses. The third method also revealed comparatively higher levels of "unmet need," but by doing so, is considered more useful for guiding improvement efforts. The authors acknowledge that Method 3 is the most time-consuming to implement because it requires objective, direct observations of the care actually provided to residents. They argue, however, that this type of monitoring should be conducted at least annually in any case.

## Related Resources

### **American Geriatrics Society**

*Guideline for the Prevention of Falls in Older Persons*

### **National Resource Center for Safe Aging**

### **American Medical Directors Association**

Scroll down to the Clinical Practice Guideline on Falls and Fall Risk

### **American Occupational Therapy Association**

### **American Physical Therapy Association**

### **Archstone Foundation**

Fall Prevention Conference White Paper

### **MedQIC, an online resource from the Center for Medicare & Medicaid Services**

Clinical Resources: Physical Restraints

### **MedQIC, an online resource from the Centers for Medicare & Medicaid Services**

Clinical Resources: Walking Improvement

### **National Center for Injury Prevention and Control**

A Tool Kit to Prevent Senior Falls

### **National Citizens Coalition for Nursing Home Reform**

Restraint Use Fact Sheet

### **National Institute on Aging**

Exercise for Older People: Guides and Videos

# Forms

## **WALKING PROGRAM**

- Program Screening Form
- Walking Assessment included on FIT Mobility Assessment for Frail Nursing Home Residents
- Walking Log
- Observation Log

## **FIT INTERVENTION**

- Prompted Voiding Protocol
- Sit-to-Stand Procedure included on FIT Mobility Assessment for Frail Nursing Home Residents
- FIT Log

### Mobility Screening Assessment Form

Resident Name: \_\_\_\_\_ Date: \_\_\_\_\_

Unit: \_\_\_\_\_ Assessor: \_\_\_\_\_

Time of Day: Morning\_\_\_ Afternoon\_\_\_ Evening \_\_\_

Resident must meet the following criteria to be eligible for mobility exercise:

1. Able to Walk (MDS assessment and/or care plan): **Yes** \_\_\_ **No** \_\_\_

G1c(A) Walk in Room: \_\_\_\_\_ G1d(A) Walk in Corridor: \_\_\_\_\_

**Note:** Both items should be rated as a "0" (independent) or "1" (requires supervision) to be eligible. Staff might also consider residents who require only limited assistance (rating = 2) as candidates for exercise.

2. Able to move from a sitting to standing position: **Yes** \_\_\_ **No** \_\_\_

**Note:** Resident should be able to move from sit to stand independently or with supervision and/or verbal instructions (Refer to Mobility Assessment for Walking and Sit-to-Stand Ability).

3. Able to follow a one-step command: **Yes** \_\_\_ **No** \_\_\_

Some residents who can walk may nevertheless be inappropriate candidates due to behavioral and/or cognitive problems that interfere with their ability to comply with a walking and exercise program. At the very least, residents need to be able to follow one-step commands. The following assessment will allow you to determine if a resident is capable of following simple verbal commands:

a) What is your name? (first name only is acceptable): \_\_\_\_\_

b) What is this called? (hold a common object for the resident to identify, such as a pencil or wrist watch). Able to identify:

Pencil: **Yes** \_\_\_ **No** \_\_\_

Wrist Watch: **Yes** \_\_\_ **No** \_\_\_

Other: **Yes** \_\_\_ **No** \_\_\_

**Note:** Use a standard pencil not a mechanical pencil; use a standard wrist watch, not a sports watch or stop watch. Residents should be able to EITHER state their name on request (item 3a = yes) OR reliably identify two common objects (item 3b) to pass the screen.

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Resident Eligible for Exercise: **Yes** \_\_\_ **No** \_\_\_

---

Walking/Exercise Preferences: (complete if resident is eligible for exercise)

Would you like for staff to help you walk and/or exercise? **Yes** \_\_\_ **No** \_\_\_

If "yes", how many times per week would you like to walk/exercise?

Once/week\_\_\_ 2-3 times/week\_\_\_ Every Day\_\_\_ Other\_\_\_ (describe: \_\_\_\_\_)

## FIT Mobility Assessment for Frail Nursing Home Residents

Resident Name: \_\_\_\_\_

Date \_\_\_\_/\_\_\_\_/\_\_\_\_

STAFF ASSESSOR: \_\_\_\_\_

### Trial 1

### Trial 2

#### 1) Time of Day

\_\_\_\_\_

\_\_\_\_\_

Apical Pulse

\_\_\_\_\_

\_\_\_\_\_

Blood Pressure

\_\_\_\_\_

\_\_\_\_\_

**Note:** Apical Pulse and Blood Pressure are optional.

#### 2) Sit To Stand:

1: \_\_\_\_\_

\_\_\_\_\_

Note: For trial 1: record how long it takes to do one sit to stand.

For trial 2: Record how many sit to stands resident can do in 30 seconds.

Sit to Stand level of Assist:    \_\_\_Level 1    \_\_\_level 2    \_\_\_level 3    \_\_\_level 4    \_\_\_unable to stand

#### 3) Walking/Wheeling ability

Time @ 6meters:

\_\_\_\_\_

\_\_\_\_\_

Distance @ 5 Minutes

\_\_\_\_\_

\_\_\_\_\_

Walking/Wheeling level of Assist:    \_\_\_Level 1    \_\_\_level 2    \_\_\_level 3    \_\_\_level 4    \_\_\_unable to walk

ASSISTIVE DEVICE(S) NEEDED (E.G., walker, gait belt): \_\_\_\_\_

Why Stopped? (circle)    Physical Fatigue

Physical Fatigue

Verbal Fatigue

Verbal Fatigue

Instability

Instability

Lack/Motivation

Lack/Motivation

Other \_\_\_\_\_

Other \_\_\_\_\_

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#### LEVELS OF ASSISTANCE – DEFINITIONS:

**LEVEL 1:** INDEPENDENT – RESIDENT ABLE TO PERFORM ACTIVITY ON COMMAND (e.g., “please stand up).

**LEVEL 2:** VERBAL INSTRUCTIONS – RESIDENT ABLE TO PERFORM ACTIVITY WITH VERBAL INSTRUCTIONS (e.g., “place your hands on the arms of the chair, place your feet on the floor directly in front of you, push yourself up/stand up”).

**LEVEL 3:** PHYSICAL GUIDANCE – RESIDENT REQUIRES STAFF TO HELP INITIATE THE MOVEMENT BUT DOES NOT REQUIRE STAFF TO PHYSICALLY LIFT OR HOLD IN POSITION (e.g., staff member places residents’ hands on the chair arms, places residents’ feet in position in front of them, guides but does not lift resident into a standing position).

**LEVEL 4:** FULL PHYSICAL ASSISTANCE – RESIDENT REQUIRES STAFF TO PROVIDE PHYSICAL ASSISTANCE TO LIFT AND/OR SUPPORT INTO POSITION.

**Note:** The use of assistive devices (e.g., walker, cane) is acceptable and does not affect level of staff assistance.

# WALKING LOG

**Resident's Name:** \_\_\_\_\_

**Instructions to CNA:**

- Ask resident to walk with you (e.g., “Good morning, Mrs. Anderson, would you like to walk today?” “It’s time for our walk today, Mr. Jones.” “Please join me in a walk, Mrs. Sanchez.”).
- If the resident refuses, politely ask why or for an explanation (e.g., “Is there a reason you don’t want to walk today, Mrs. Anderson?”).
- If there is no physical reason for the refusal (e.g., resident is not ill or in pain), then again, ask him or her to walk with you (e.g., “Please, I’d enjoy it if you’d walk with me, Mrs. Anderson”).

**Record results here:**

Date	Resident agreed to walk? (circle one)	If no, why not? I=illness; P=pain; N=not in the mood; O=other reason (write the reason)	If yes, time started?	Time Ended?	Total Minutes Walked*	CNA initials and comments (e.g., had to stop twice; complained of pain; walked to dining room and back, etc.)
	Yes No					
	Yes No					
	Yes No					
	Yes No					
	Yes No					
	Yes No					
	Yes No					
	Yes No					
	Yes No					
	Yes No					

\* If the “total minutes walked” declines 2 days in a row, ask a nurse to assess the resident.

## WALKING PROGRAM: DIRECT OBSERVATION FORM

Name of observer: \_\_\_\_\_

Date: \_\_\_\_\_

Residents' Names	Scheduled Walk Times	Time of Observation in Vicinity of Resident's Room	Resident Observed Walking? (Circle one.)	Comments
			Yes      No	
			Yes      No	
			Yes      No	
			Yes      No	
			Yes      No	
			Yes      No	
			Yes      No	
			Yes      No	
			Yes      No	

## Prompted Voiding Protocol

1. Contact each resident every two hours from 8 a.m. to 4 pm (i.e., four times per day).
2. Focus the resident's attention on voiding by asking whether he or she is wet or dry.
3. Check resident for wetness and give feedback on whether the resident's self-report was correct or incorrect (e.g., "Yes, Mrs. Jones, you are dry.")
4. Whether wet or dry, ask the resident if he or she would like to use the toilet (or urinal).
  - a. If yes:
    1. Assist him/her with toileting.
    2. Record the results on the bladder record.
    3. Give the resident positive reinforcement by spending an extra minute or two conversing with him or her.
  - b. If no:
    1. In the event they have not attempted to void in the last four hours, repeat the request to use the toilet once or twice before leaving, and follow step 4(a) if an affirmative response is received.
    2. If the resident is wet and declines to use the toilet, change him or her.
    3. Inform the resident that you will be back in two hours and request that the resident try to delay voiding until then.
5. Record results of each wet check and toileting attempt on either the following form or the FIT Daily Log.

## FIT: DAILY LOG

Resident Name: \_\_\_\_\_ Employee Name: \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_ at 1<sup>st</sup> session \_\_\_\_\_ at 2<sup>nd</sup> \_\_\_\_\_ at 3<sup>rd</sup> \_\_\_\_\_ at 4<sup>th</sup>

**1. Resident's condition at the start of the session (circle one for each session):**

<b>1<sup>st</sup>:</b> Dry Wet Bowel Wet and bowel	<b>2<sup>nd</sup>:</b> Dry Wet Bowel Wet and bowel	<b>3<sup>rd</sup>:</b> Dry Wet Bowel Wet and bowel	<b>4<sup>th</sup>:</b> Dry Wet Bowel Wet and bowel
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**2a. FOR RESIDENTS IN CHECK-AND-CHANGE PROGRAM: Change wet or soiled diapers.**

**2b. FOR RESIDENTS RECEIVING PROMPTED VOIDING: Toileting outcome (circle one for each session):**

<b>1<sup>st</sup>:</b> Refused Dry run* Urine Bowel Urine and bowel	<b>2<sup>nd</sup>:</b> Refused Dry run Urine Bowel Urine and bowel	<b>3<sup>rd</sup>:</b> Refused Dry run Urine Bowel Urine and bowel	<b>4<sup>th</sup>:</b> Refused Dry run Urine Bowel Urine and bowel
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- A "dry run" means that the resident attempted to toilet but failed to void.

**3. Record the following. Check here if resident cannot exercise due to sickness or pain: \_\_\_\_\_**

Total number of:	1 <sup>st</sup> session	2 <sup>nd</sup> session	3 <sup>rd</sup> session	4 <sup>th</sup> session
Minutes walked				
Sit-to-Stands				
Arm curls/raises (1 time each day; indicate session)				

**4. Fluids offered. Record consumption.**

No. of ounces:	1 <sup>st</sup> session	2 <sup>nd</sup> session	3 <sup>rd</sup> session	4 <sup>th</sup> session
Before exercise				
After exercise				

# Mobility Decline Prevention Quiz

Instructions: Check the best answer.

**1. Frail nursing home residents who do not engage in regular exercise tend to:**

- a. \_\_\_ Lose functional ability over time
- b. \_\_\_ Maintain functional ability over time
- c. \_\_\_ Increase functional ability over time
- d. \_\_\_ Maintain or increase functional ability over time

**2. Ambulatory residents should be encouraged to walk even if:**

- a. \_\_\_ Their physician refuses consent
- b. \_\_\_ They report pain
- c. \_\_\_ They refuse the first offer to walk
- d. \_\_\_ They report feeling sick

**3. To encourage residents to walk, nurse aides should:**

- a. \_\_\_ Converse with the residents
- b. \_\_\_ Let residents set the pace
- c. \_\_\_ Let residents choose the walking route
- d. \_\_\_ All of the above

**4. When setting walking goals for ambulatory residents, the Borun Center recommends that nursing home staff:**

- a. \_\_\_ Encourage residents to walk faster over time
- b. \_\_\_ Encourage residents to increase the distance they walk
- c. \_\_\_ Encourage residents to increase the amount of time they walk
- d. \_\_\_ Any one of the above

**5. Which of these program evaluation strategies is recommended for walking programs?**

- a. \_\_\_ Resident interviews
- b. \_\_\_ Supervisor observations of walking
- c. \_\_\_ Walking logs
- d. \_\_\_ All of the above

**6. FIT differs from most exercise programs in nursing homes in that it:**

- a. \_\_\_ Distributes exercise over the course of a day
- b. \_\_\_ Integrates exercise with daily incontinence care
- c. \_\_\_ Is designed for residents with severe functional and cognitive impairments
- d. \_\_\_ All of the above

**7. Residents who participate in FIT, or Functional Incidental Training, may engage in which exercise:**

- a. \_\_\_\_ Sit-to-stands
- b. \_\_\_\_ Arm curls or arm raises
- c. \_\_\_\_ Walking or wheelchair propulsion
- d. \_\_\_\_ All of the above

**8. Compared to scheduled toileting, prompted voiding:**

- a. \_\_\_\_ Takes considerably more time to implement
- b. \_\_\_\_ Is more effective at reducing incontinence
- c. \_\_\_\_ Is less appropriate for residents with cognitive impairments
- d. \_\_\_\_ Is more commonly used in nursing homes

**9. Which of these program evaluation strategies is not recommended for the FIT program because it is impractical to implement?**

- a. \_\_\_\_ Resident interviews
- b. \_\_\_\_ Supervisor observations of care delivery
- c. \_\_\_\_ Daily logs
- d. \_\_\_\_ Weekly wet checks

**10. The most practical strategy for modifying FIT so that it is feasible to implement in more nursing homes is to:**

- a. \_\_\_\_ Reduce the number of FIT participants
- b. \_\_\_\_ Increase the number of staff available to implement FIT
- c. \_\_\_\_ Offer fewer daily episodes of incontinence care and exercise
- d. \_\_\_\_ All of the above

Answers: 1. a; 2. c; 3. d; 4. c; 5. d; 6. d; 7. d; 8. b; 9. b; 10. a