

# What Non-Home Health Providers & Clinicians Should Know about Patients' Homes: A Home Health Occupational Therapist Perspective )

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# Reason for this Presentation

- ▶ There is a disjunction between what providers and health care workers in medical settings think their patients and their families are like from interacting with them in clinics and hospitals and how they behave, what they are doing, and **what they are struggling with**, at home.
- ▶ Helpful to have a basic understanding of home functional and safety issues, home safety, and durable medical equipment to make your geriatric patients **safer and more functional and confident** at home.
- ▶ From my experience and what I concentrate on and see my coworkers concentrate on, **not speaking for all VA, HBPC, or occupational therapists**

# Content Divided Into Three Areas

- ▶ Communication/Medical/Symptom Issues
- ▶ Accessibility/Functional/Safety Issues
- ▶ Agency Issues

# Communication/Medical/Symptom Issues

- ▶ Reason for this Presentation: A realistic “home” perspective on your clinic patients so you can treat as safely and realistically as possible.
- ▶ HBPC
- ▶ What you get for an OT home evaluation
- ▶ Precautions, home safety issues home care provision staff may need to know
- ▶ Medication and Supplements
- ▶ Dementia
- ▶ Pet management and effect on decisions to go to higher level of care
- ▶ Transportation and Driving
- ▶ Oxygen and Smoking Safety



# Communication/Medical/Symptom Issues, continued

- ▶ Incontinence
- ▶ Malnutrition
- ▶ Skin tears
- ▶ Pressure Ulcers
- ▶ Bariatric skin issues
- ▶ Diabetic/geriatric feet
- ▶ Edema, lower extremity

# Accessibility/Functional/Safety Issues from One Therapist's Perspective

- ▶ Falls
- ▶ Ambulation
- ▶ Transfers
- ▶ Durable Medical Equipment
- ▶ Bariatric Issues with Equipment
- ▶ Power mobility
- ▶ Home Accessibility and Universal Design, Smart homes
- ▶ Home Modifications

# Agency Issues

- ▶ Home health agencies and patient expectations
- ▶ Competing treatment stakeholders/provider shopping
- ▶ Home health therapy
- ▶ Community resources
- ▶ Adult Protection
- ▶ Hospice

# Communication/Medical/ Symptom Issues

# You Need to Break Down the Front Stage a Little...

- ▶ The person sitting in the chair or on the paper covered exam table bears no resemblance to the one that lives at home. They are behaving in a manner that they think is what you expect and the setting demands.
- ▶ In our culture, not facing & looking at someone means they are insignificant. Notebooks, I Pads, and Laptops may be helpful for entering your electronic progress notes and saving time, but can ruin your provider/patient relationship by shutting down your communication.
- ▶ While YOU are using them, elderly patients can't hear you nor can they get any non verbal cues on what you are thinking. You will never get past the front stage if you don't appear interested and are treating them like an object. I use a portable cane seat in patients homes for inclusion and personal space and proxemics enhancement to improve communication and comfort while I work with them
- ▶ Head nodding normally means someone hears and agrees. I've observed, with many elders, the more head nodding and polite smiling, the less they are hearing. Inversely proportional. Ask them if they heard you several times, especially at the beginning of your clinic visit so you can adjust the volume and pace of your speech. Ask for knowledge confirmation/repeat back.

# Breaking Down the Front Stage, Continued

- ▶ Use eye contact, non verbal communication, & humor for “I thou” interactions: it breaks down the front and back stages and you may get a clearer picture
- ▶ Let them see a little personal side of you. They need a little common ground from you to develop a relationship.
- ▶ Avoid jargon. When you use a medical term, put it in plain English afterward. Postural/orthostatic hypotension.

# What is HBPC

- ▶ Home based Primary Care goal is to target “complex, chronic, progressively disabling disease” and “serve the chronically ill” and aging “through the months and years before death.”
- ▶ Our Grand Junction program is essentially a PACT Clinic at home. Team members are in the same office, communicate regularly, and get to know the Veterans and their families very well, sometimes treating them, in their homes or assisted living centers, for years. Team disciplines include:

Physician medical director

Program manager/director

Primary Care Providers (physician and NP)

Registered nurses

Occupational therapists

Social workers

Dietitians

Pharmacists

Psychologist

Program support assistant

# What You Get for a Home Evaluation if You are a Clinical Provider

- ▶ An Occupational Therapist comes in to the home and evaluates:
- ▶ Fall History, fall risk, and prevention
- ▶ Home safety including fire, oxygen, smoking, pets, emergency notification, etc.
- ▶ Home accessibility, including measurements of all doors and steps, toilet and tub wall height, if necessary, and recommendations for remedies to any barriers to access or safety.
- ▶ Durable medical equipment and assistive devices assessment
- ▶ Ambulation and balance assessment and functional locomotion. I use Tinetti, not Timed Up and Go Test
- ▶ Mobility and transfer observation within the home including chairs, shower/tub and toilet transfers, bed transfers. I use the FIMS to rate how independent they are or how much help they will need.
- ▶ Self care and Independent activities of daily living
- ▶ Pressure ulcer prevention and positioning recommendations
- ▶ Hand grip (MMT and ROM when indicated)
- ▶ Home exercise recommendations—I recommend activities



# Medication Problems

- ▶ Home health workers show up and find medication & unreported supplements all over the home, stashed in cabinets, still in boxes or bags at the front door, expired medication, etc. It can be a nightmare to sort out.
- ▶ Pillboxes and alarming carousels are helpful and can help everyone track what is, and isn't, going on with meds.
- ▶ Meanwhile, patients will tell you they are taking their taking their pills as directed even if they aren't. Then they will describe symptoms, and you will go on to make medication adjustments on the basis of what they are saying, not what they are doing.

# Medications Success

- ▶ ...and if you do a REALLY good job on symptom management with your medications, in treating the disease process, etc. and your patient feels a lot better—
- ▶ He or she will start asking you to decrease or eliminate “all these pills” because he or she is “better, and doesn’t need them anymore.”

# Pain Medication

- ▶ Sometimes reporting certain levels of pain becomes a habit. When you get a pain number, ask if they are experiencing that pain right now, or how often at home.
- ▶ Home health workers can tell you that reports of pain often vary by who they are talking to at the time.

# Sleep Medication Overuse: Is There Really a Problem

- ▶ Many of your patients are napping during the day but may not recognize how much they are napping. Sleep needs, and preferred times, change with age: 6.2 hours on average at 60 according to one study and older adults like to get up earlier.
- ▶ An hour of wakefulness in the small hours of the morning is actually common.
- ▶ One popular sleep medication patients frequently ask for adds on average only 15 extra minutes of sleep a night and also decreases sleep time spent in Stage III and IV. Can stay in the system a long time during the day and exacerbate parasomnias.

# Dementia

- ▶ Door alarms, chair and bed alarms, seated pad alarms, fall buttons that call operators or family/caregivers before 911.
- ▶ ID bracelets
- ▶ GPS bracelets overseen by local police/county
- ▶ Low beds, pad furniture edges, remove knives, guns, lock up cleaning materials, unplug stoves, etc.
- ▶ Be aware of irritability, threats, fear of water/showers, incontinence and lack of awareness of incontinence as signal advanced stages are being reached. Ask the caregiver what is going on in the home when no one is around them.



# Pet Management

- ▶ The presence of pets in the home will significantly impact living situation decisions. Ask about this.
- ▶ Some of your patients are dissatisfied with home health agencies because they won't walk, feed, change litter, but they are not supposed to perform pet management.

# Transportation and Driving

- ▶ Know your legal obligations to report unsafe drivers in your state.
- ▶ Know your institutional policies for reporting.
- ▶ Don't automatically think keys need to be given up at a certain age: remember, statistically, most elders are safer drivers than teenagers, especially new drivers.
- ▶ Lack of transportation is one of the biggest barriers to staying at home



# Oxygen, Smoking, and COPD Positioning

- ▶ If your patient smokes, address this as a fire hazard, ask them to make sure their tubing has fire suppression valves. Are they smoking in bed?
- ▶ Weigh gain and risk for dangerous behavior.
- ▶ Document your education
- ▶ Ask your patient if they are sleeping in a recliner, and why. They may need to put extra pillows, a bed wedge, or get a hospital or inclining bed for breathing. Same for bariatric patients.



# Incontinence

- ▶ Very underreported to clinic providers, but conversely heavily impacts your patients and their families at home. Home health workers and clinicians know about it as soon as they walk inside the home.
- ▶ Can limit social interaction and ability to go places
- ▶ Always bring this up. Discuss pads, pull ups, chuck barriers, mattress covers, and reassure this is a very common problem around a certain age. Incontinence issues need to be normalized. Check skin.
- ▶ Recommend they take back up clothes and attends with them on outings
- ▶ Discuss barrier creams, not stinting on the attends changing, protecting furniture
- ▶ Urgency increases fall risk



# Malnutrition

- ▶ Weight loss patterns should be followed carefully. Check back a few years
- ▶ Appetite changes as we age. Less activity, loss of taste, dentation contributes, swallowing issues.
- ▶ Food insecurity can occur: hard to shop, money woes, difficulty cooking
- ▶ Expired food can be a problem
- ▶ Watch for pressure ulcers with weight loss, check skin.
- ▶ Nutritional supplements (boost, ensure, etc.)
- ▶ Referral to dietitian

# Skin Tears

- ▶ Skin thins with age, and many patients are on medications that further thin skin & make it more fragile while also increasing bleeding risk.
- ▶ Your patients spend a lot of time dealing with this and cleaning up furniture and bedding.
- ▶ Do a LOT of education on how to dress skin tears and when to come in for treatment.
- ▶ Give your patients a handout on what types of dressings they can have around the house, where to keep it so it is readily accessible in the excitement of the moment, and what not to use.
- ▶ Remind them they may need to wear long sleeves to protect arms.

# Pressure Ulcers

- ▶ Stage 1s and 2s and Unstageable, and maceration wounds/fungal rashes are very common in this population.
- ▶ Many are related to sitting in a recliner or sleeping in a recliner.
- ▶ Always check your at risk patients skin, or have your RN or LPN check in the clinic.
- ▶ Pressure reliefs should be performed every 15 minutes when sitting
- ▶ Discuss cushions, mattresses, pressure relief methods with your patients: air cushions, foam cushions, DME providers, Amazon, big box stores







# Bariatric Skin Issues

- ▶ Large mass to skin area causes sweating and overheating.
- ▶ Check skin folds: yeast/fungal is common issue in this population
- ▶ Toileting hygiene is difficult. There are reach extenders and bidets, wipes can be helpful for both bariatric and geriatric populations as they are easier to grip and clean effectively.



# Geriatric and Diabetic Feet

- ▶ Bunions, hammer toes, callouses are common in geriatric population. So are thickened toenails and fungal infections.
- ▶ Look at shoe wear or alterations. Consider orthotics or specialty shoes.
- ▶ Diabetic wounds can progress quickly, especially with uncontrolled sugar levels. Be sure someone is inspecting feet at home. Skin inspection mirrors are available, but as we age we often need a second pair of eyes, daily.
- ▶ 5 year mortality rates after new onset diabetic ulcers are 43-55% “Mortality Rates and Diabetic Foot Ulcers” by Robbins et al in the Journal of Podiatric Medical Association Volume 98.
- ▶ Watch for backless slippers and plastic “croc” type shoes, hard to walk in these



# Edema, especially Lower Extremity

- ▶ Very common among your geriatric patients.
- ▶ Talk to them about TED or compression socks, explain where they can get them. Make sure they have the circulation to support their use.
- ▶ They are difficult to get on. There are donning assistive devices. Also, they may need slightly larger than measurements indicate.
- ▶ Discuss elevation, including above the heart, taking a nap break in bed rather than the recliner, for example. Elevating feet in bed with pillows or positioning products. Avoiding sleeping in a recliner at night.
- ▶ Discuss ankle pumping exercises



Accessibility/Functional/  
Safety Issues



# Falls

- ▶ Falls are the canary in a gold mine for your patients. Always ask about falls & circumstances. Make sure your patients know what a fall is.
- ▶ Responses to “How did you fall?” are, “My leg/s just gave out!” Always follow up and dig deeper with your questioning: were you using your ambulation device, did you get dizzy, where you turning, etc.
- ▶ Knee jerk reactions are to consult a therapist. Therapists can prescribe or encourage the use of ambulation device, durable medical equipment provision, transfer training, strength, endurance, and balance improvement but...
- ▶ Weakness, loss of endurance, balance issues are inherent with aging. With multiple falls, or falls that are unusual, your patient may have a UTI or be sick.
- ▶ Look at what medications your patients are on, especially hypertension medications or diuretics that may dehydrate or keep them running to the bathroom. Be aware of statin induced myopathy: it is suspected this is a very unreported side effect of these drugs. Watch sleep and pain meds.
- ▶ Also, good and bad falls. If they were out watering the lawn and trip, maybe that’s actually OK. Do you fall? Do athletes fall? Studies on fall rates of healthy, active people of any age are non existent. We really have no baseline. One thing you can be sure of, someone that is in bed or in a chair full time probably never falls, but is this good?

# Fall Rate Norms

- ▶ There are no baseline studies!
- ▶ Exploring the Fall-Risk Experience of Masters Athletes Actively Competing in Sport by Dylan Brennan, The University of Western Ontario. Thesis, 2015
- ▶ Explored the fall-risk experience of masters athletes (over 35—continuers, re-kindlers, late-starters) actively competing in sports.
- ▶ Master athletes accepted the risk of falls and injuries in their “pursuits for self-fulfillment.” They actively learned to mitigate their risk, they learned from their or others’ falls, they returned to activities after falls.

# Fall Issues

- ▶ Pie charts, graphs, correlative tables—it is hard to do interventions, especially in the home environment, because falls are so person/situation/environment specific.
- ▶ I see falls related to balance, impulsivity. I've always said better to be weak with good cognition than strong with poor.
- ▶ Also related to postural hypotension, UTIs, urinary urgency, obviously unsafe practices like pushing someone on a rollator or climbing a ladder.
- ▶ Odd categories: bird/insect/rodent related falls, irrigation and lawn-watering related falls, phone-diving falls.
- ▶ Instruct your patients to just call 911 if they don't have adequate help to get off the floor. Many think they will get a bill for the service or that the fire or police department will be annoyed. Explain rhabdomyolysis and avoiding struggling for long periods.
- ▶ Fall buttons available, different types, some require monthly subscription payments, some don't, who gets called, pacemaker issues, must be worn consistently



# Ambulation

- ▶ Common for me to get an emergency phone call from team member, someone needs a stat visit. Patients say, “I can’t walk anymore.” I show up, and they answer the door with a cane or walker. They meant, I can’t walk without a cane or walker anymore.
- ▶ Many see the use of an ambulation device as a failure, not as an adaption to keep going. They will furniture walk around the house, barely making it, instead of confidently using a cane or walker, because that is “only them, not having to depend on something.”
- ▶ Canes, walkers, rollators and forearm crutches are available. Avoid quad canes.

# Ambulation, continued

- ▶ Heights need adjustment: usually ask patients to relax arm and stand up straight, elbow will usually be around 15-20, set around radial/ulnar styloid process. Tall or short ambulation devices can be special ordered.
- ▶ Offset canes
- ▶ Avoid three wheel rollators: they are maneuverable, weight ratings of 250-264, but can't sit or carry items, easy to tip
- ▶ Parkinson's specialty walkers are available: U step, can include light laser for visual cues.



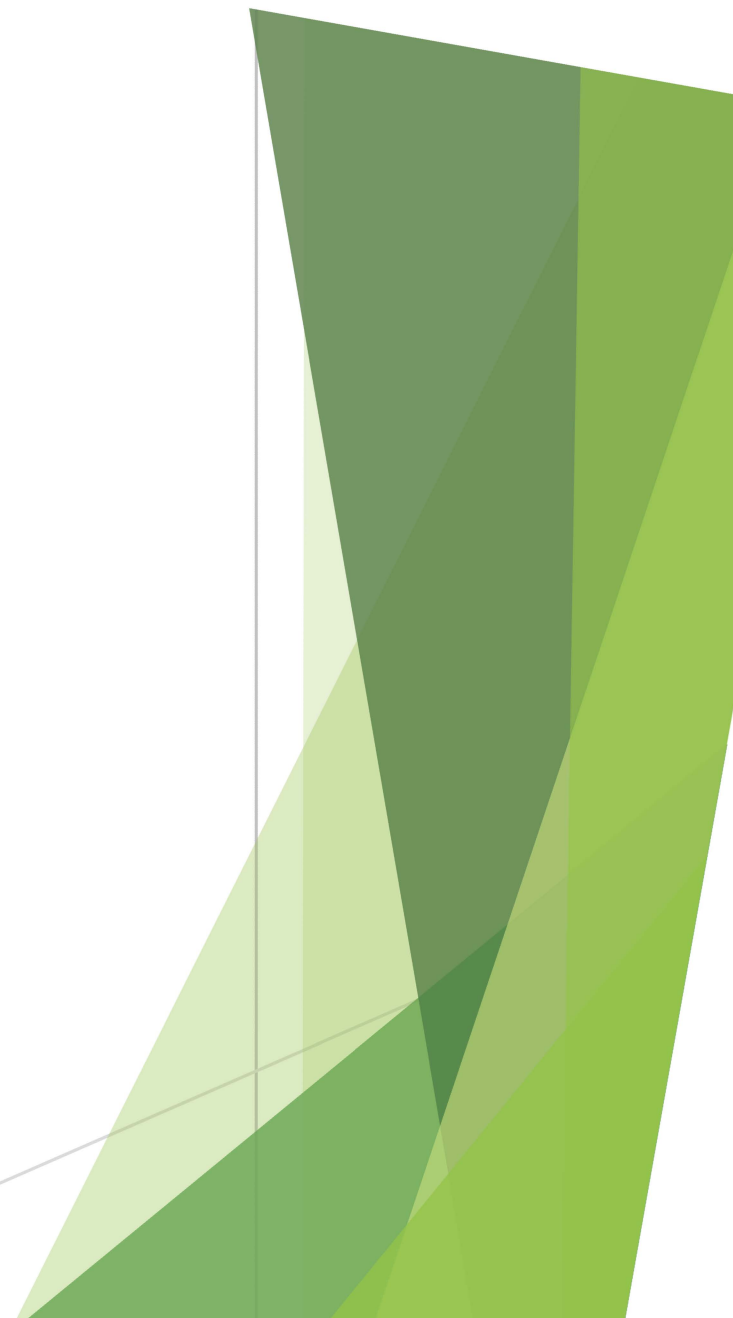






# Transfers

- ▶ “I can’t get up from my chair anymore, I’m getting weak.” Z your knees, nose over toes. Often, this is a chair, not a strength issue. Cushions and recliner platforms can help.
- ▶ DME: bed transfer handles on beds, grab bars on shower tub or shower walls, toilet safety rails or grab bars by toilets. Elevated toilet seats, or a change to comfort height toilets, can help.
- ▶ Recliners or easy chairs can be raised with cushions or purchased or constructed platforms. Furniture risers are possible...





# Durable Medical Equipment

- ▶ Who pays?
- ▶ 1 800 MEDICARE. Medicare, supposedly Part B if medically necessary and acquired from contract, enrolled suppliers. Medicare Advantage Plans with HMO or PPO must cover the same. May have co pays. Ask your supplier.
- ▶ Medicaid may pay in home or nursing home. Check website.
- ▶ VA—provides for medically/functionally/safety related DME
- ▶ State Assisted Programs
- ▶ Non Profits and foundations
- ▶ Private insurance, depends on company, then state company is in. Hard to get a straight answer.

# Durable Medical Equipment

- ▶ Simple and complex: shower chair versus a CCTV or power wheelchair.
- ▶ Bathrooms, bedrooms, living rooms, community use.
- ▶ Be aware of product weight ratings and sizes
- ▶ Most common: shower chairs, transfer tub benches, hand held showers, grab bars, bed transfer handles, toilet safety rails, elevated toilet seats...

# Durable Medical Equipment: Bathrooms

- ▶ Bathroom: shower chairs in shower stalls, transfer tub benches in tub/shower combinations. All should have adjustable heights. Hand held shower faucets and at least two if not three grab bars are usually indicated.
- ▶ Glass doors often get in the way, but hard for people to give them up.
- ▶ Bathroom: toilets can be raised by getting a new comfort height toilet (17-19 inches), elevated toilet seats (2-4), or toilevators for under the entire toilet to raise it up.
- ▶ Grab bars, toilet safety rails, toilet surrounds can all be used to get up from a toilet. Some shower chairs have armrests.
- ▶ Bidets are always mentioned for hygiene, much more common overseas, but there are electrical and plumbing issues that patients should be aware of.
- ▶ Recommend night lights and shower mats or strips for the bathroom, as well as secured bath rugs.















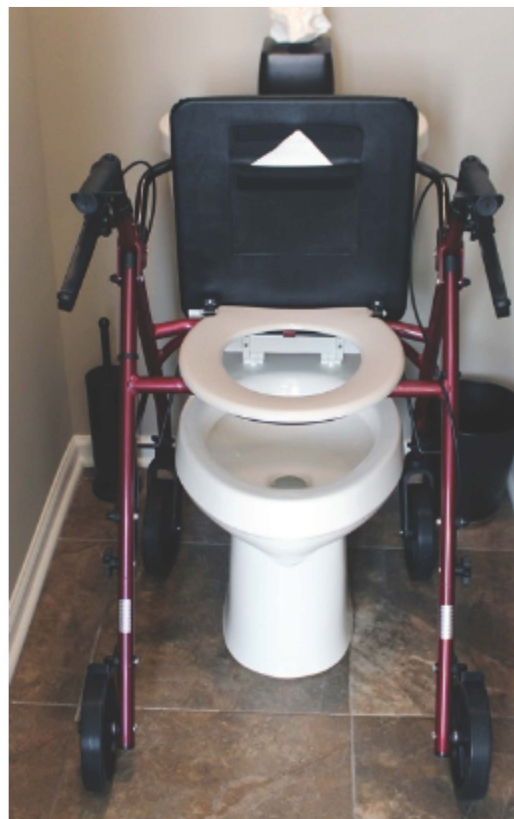




► Transfer tub bench









# Bathrooms, continued

- ▶ Tub shower chairs often require transfer tub bench. Shower stalls can be step in or roll in.
- ▶ If a roll in shower, a shower wheelchair can be provided. They can be pushed over toilets. Cut outs available on some, change orientation for toileting or bowel care. Padded/tilt models for skin protection. Beware of roll ins that aren't roll ins!
- ▶ For problematic bathrooms and very dependent patients, tub slide shower chairs work well. More on that later...
- ▶ VA no longer assists with walk in tubs through HISA. Look at the price and check out the transfer requirements with these tubs.

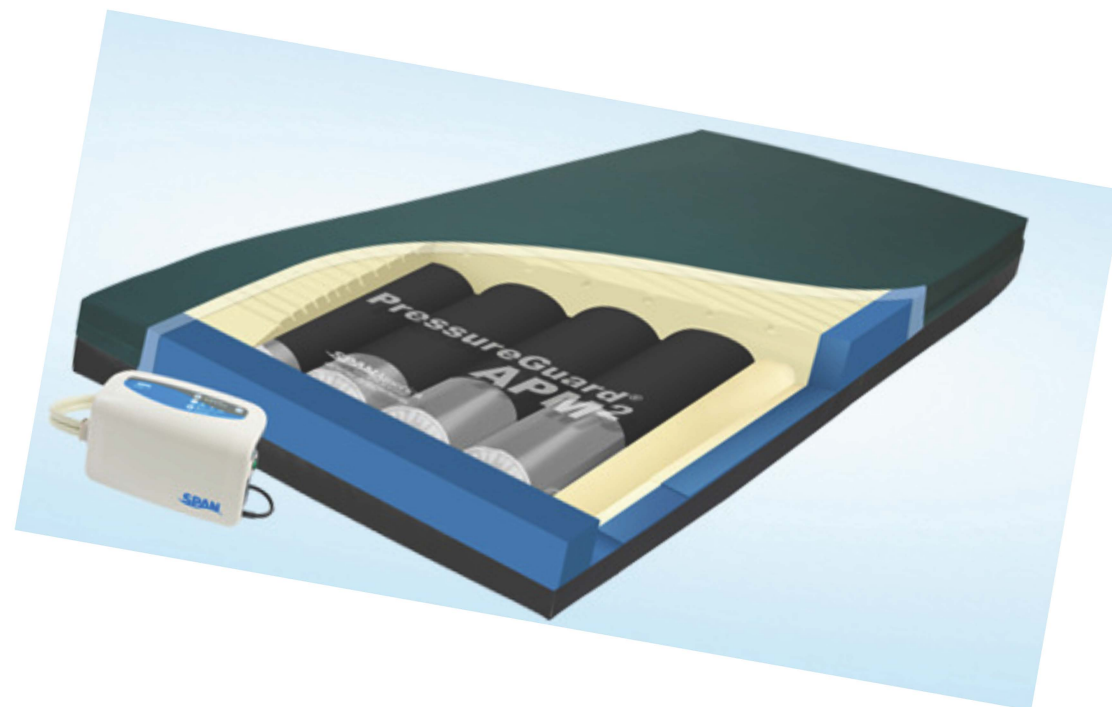




# Durable Medical Equipment: Bedrooms

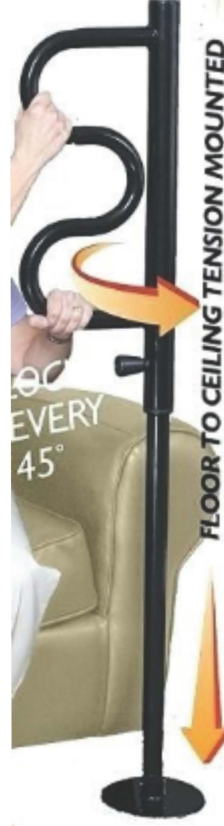
- ▶ There are a lot of bed height issues. Low beds, high beds, both can be altered. (Remove overlays, casters if too tall) Beware of spring mattresses for fall hazards. Big issue for falling is a too high bed with a compressible edge.
- ▶ Too many overlays—cocoon for bed mobility.
- ▶ Bed transfer handles or tension mounted safety poles can be put on or by the bed. (bars and trapezes)
- ▶ Encourage nightlights, phone and fall buttons, clocks, and water glasses next to bed.
- ▶ Pad furniture and put in a low bed for frequent fallers. Beware of fall mats!
- ▶ If your patients have mattress-related wounds, or lack bed mobility and dependent transfers, dynamic mattresses or therapeutic foam mattresses, on hospital beds, may be indicated. I use APM and Geomattresses.





# Durable Medical Equipment: Living Rooms

- ▶ Therapists teach proper techniques for getting in and out of chairs. See next slide
- ▶ Make sure the phone is next to the sitting chair to avoid phone-diving falls
- ▶ Keep a fall button next to the chair, too. Set phones up with pre-programmed contact numbers. Everyone panics in an emergency.
- ▶ Transfer poles, tension mounted with adjustable, locking bars, can be mounted next to recliners and easy chairs. There are other types of transfer devices, but due to the variance in how the legs are mounted on chairs, this is usually the safest bet.





# Getting Up from Recliner: “I’m Getting Weak”

- ▶ Recliners are getting deeper, wider, and seats can be low, especially after years of sitting in them. Human measurements (anthropometry) versus furniture construction.
- ▶ Recliners or chairs can be raised with cushions or recliner platforms.
- ▶ Avoid lift chairs: that Father’s Day gift may be the first step to not being able to walk anymore. Beware of signing a prescription if they don’t need it. How do you know? Watch them in your clinic...
- ▶ VA does not provide lift chairs anymore. They are getting more and more like a universal chair, however, that is electronic controls that do everything...
- ▶ There are lift cushions, but limited application. I call them a road to nowhere. Best for amputees or severe tone/strokes—patients walk well but have more difficulty getting into that standing position. Portable.

# Durable Medical Equipment: Wheelchairs

- ▶ Stock or custom, hemi versus standard height (17.5 inches vs 19.5), bariatric wheelchairs. All should have cushions.
- ▶ Hemi usually indicated if someone is short or foot propels.
- ▶ Safer wheel locks—MS company's products doesn't need a lot of readjustment.
- ▶ Avoid too wide chairs (hard on shoulders to propel), but also allow for weight loss or gain AND SITTING COMFORT. Always take bariatric/user weight into consideration for all DME.





# Prescribing Power Mobility

- ▶ Power mobility devices should only be prescribed for those who truly need them, with very advanced cardiac or pulmonary issues, neurological impairments that are progressive or orthopedics that preclude the use of 3 extremities, combination thereof, etc.
- ▶ No weight gain if properly prescribed! Yang, Wilson, Oda, Yan “The Effect of Providing Power Mobility on Body Weight Change” American Journal of PM&R, 9/2007
- ▶ Condition should be permanent and not responsive to remediation.
- ▶ Power wheelchairs can be used indoors or outdoors and are driven with a joystick.
- ▶ Scooters are designed for outdoor use only and are driven by a tiller
- ▶ Don't write a prescription unless power mobility is necessary. Make sure an experienced, local DME vendor, and therapist, will be involved. Some states require specialists to write prescriptions—takes the pressure off the primary care provider...
- ▶ Home health providers see expensive power chairs sitting in garages, all the time, not being used because of dead batteries, or being used as laundry baskets in the bedroom, etc.







# Patient Transfer Equipment

- ▶ Simple to complex: gait belts to patient lifts.
- ▶ Partial to full transfer assist lifts.
- ▶ If a patient needs more than min assist (they can't do 75% of the transfer), I recommend a floor lift or a stand aide if they have some trunk and UE strength.
- ▶ What is min assist for a 400 lb. patient? (Dionne's Bariatric)
- ▶ Getting in and out of a vehicle for dependent patients is *almost* impossible. At some point, going to a modified van is indicated or use transport services.
- ▶ I see therapists talking about turney-type seats, but this type of specialty equipment needs a specialist to prescribe.







# ADA: Good Luck Finding a Cheat Sheet!

To Read the Standards, Pack a Lunch

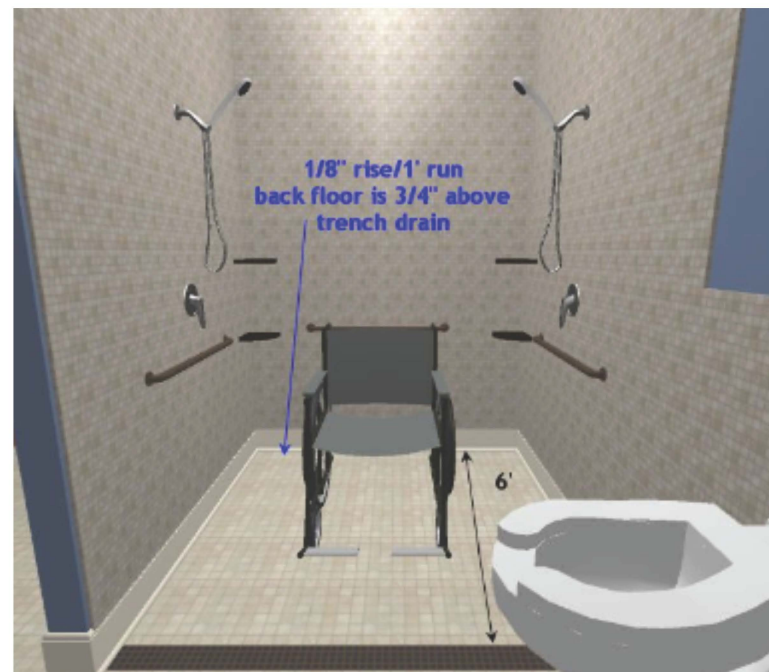
- ▶ [www.ada.gov/regs2010/2010ADAStandards/2010ADAStandards](http://www.ada.gov/regs2010/2010ADAStandards/2010ADAStandards)
- ▶ Department of Justice published revised regulations for Titles II & III of the Americans with Disability Act of 1990 in the Federal Register on 9/15/2010.
- ▶ 2010 also establishes a revised reference for structural changes to improve barrier removal.
- ▶ For purposes of this presentation, I will go over general recommendations for patients' homes that I've observed. Practical, "good enough" presentation not a technical masterpiece. I've given you the website link for that.
- ▶ In order to understand doorway widths, ramp heights and length, staircase specifications, it's important to know information about DME, especially ambulation/locomotion DME your patients will be using, and how they will benefit from certain ramp and stair features for safety and ease of use.

# Accessibility Givens

- ▶ Wide doors
- ▶ Ramps not steps if possible (but not always!)
- ▶ Grab bars or handrails for steps or stairs
- ▶ Shower stalls or roll in showers, not tub/shower combinations
- ▶ Home modifications or specialized DME can help, especially in bathrooms.







Discontinued



# Accessibility: Ambulation Aids

- ▶ Canes: no accessibility issues
- ▶ Front wheel walkers: Prefer 5 inch casters to 2 inch. Back extensions legs' glide tips wear over time, may need replaced to make it easier to push (or skis or tennis balls).
- ▶ Overall width tends to be 21-23 wide for weight capacity of 300-350 lbs. Bariatric front wheel walkers have tendency to be similar in width but for 500-650+ you will find some that are fixed at around 28 or adjustable ones that range from 22.5-27.5 for 500 lb. or 25-30 for 1000.



# Accessibility: Ambulation Aids, continued

- ▶ Rollator (four wheel) walkers with seats: Increasingly popular, not for everyone, widths are around 24-25 for users between 250-300 lbs. These weigh around 19 lbs. and up.
- ▶ Bariatric rollator: Seat width dictates these being wider for bariatric users: 27-30.5, wider or larger wheels, and weight capacities are for 375-700 lbs. A specialty 1000 walker made by one manufacturer is almost a hybrid of front wheel and rollator, & brakes are seated pressure on back casters.
- ▶ O2 tanks can be hung on walkers off front bar. Rollators can carry O2 tank holder on side (not front) for D and E tanks. Smaller tanks can go in basket.
- ▶ Rollators usually require at minimum a 27 wide door, sometimes I can get away with 26, otherwise side step. They cannot be sidestepped. (Try grab bars or 2<sup>nd</sup> walker in the bathroom)

# Accessibility: Wheelchair Widths

- ▶ For manual wheelchairs: add a minimum of 8 inches to seat width. So,
- ▶ in a stock 18 x 16 wheelchair, for example, the chair will usually be 26 inches wide, including the axle, wheel, hand rim, and hand rim spacing. This can be less or more depending on camber.
- ▶ Stock vs “lightweight/ultralight” custom: weight and camber issues
- ▶ For power wheelchairs, most bases are around 23.5-25 and can be wider for bariatric patients or clients. Add 6 inches to the seat width because here you are probably going to have a wider seat than base (due to armrests).
- ▶ Transport chairs: lightweight, narrow (20-22 inches): can be very handy at home as well as out in the community.

# Bathroom Accessibility

- ▶ Shower stall inserts are best installed with no built in benches.
- ▶ Switching a tub/shower combo to a shower stall or getting a tub cut out is helpful.
- ▶ Some manufactured homes have very high bases in their tub/showers (5-6 inch difference): these are an especially tough egress

# Accessibility: Shower Chairs

- ▶ Regular shower chairs are rated for 300 most of the time, tend to be 17-19 wide at base. A lot of tubs are 17.5 to 18 so be careful. Some shower stalls have very small bases or bases that are limited in area due to built in benches (bumps) as well.
- ▶ Heavy duty shower chairs often have extra reinforcement (cross braces) and are 18-21-30 inches wide for 500+ lbs.
- ▶ If patients are very tall, or “plop” during transfers, extra reinforcement or leg (and seat) depth may be needed.
- ▶ Shower wheelchair widths depend upon wheels or casters. Typically 22 to 26/27 inches wide depending on whether you have casters (4-5 inches, therefore narrower) or large wheels with hand rims for user self-propulsion. Shower commode chairs on casters can be pushed through very narrow bathroom doors.

# Transfer Tub Bench

- ▶ For tubs without glass doors or with them removed.
- ▶ 2 legs inside the tub, with suction cups
- ▶ 2 legs outside with rubber tips
- ▶ Leg height is adjustable: beware atypical tubs with high bases or high walls or tubs on elevated platforms
- ▶ No need to step over tub wall, just sit down and slide over.
- ▶ Tuck or trim shower curtain

# Accessibility: Grab Bars

- ▶ Most requested reason for home evaluations for me: How many grab bars are needed, and where to put them?
- ▶ When at a home, I always see where the patients are putting their hands.
- ▶ Typically, for either a shower stall or a bathtub/shower combination, I put one grab bar, horizontally, on the long wall facing the door or opening, and 1 grab bar vertically near the faucet/shower head/hand held shower.
- ▶ Toilet grab bars can be on either wide of the toilet, or across from it if within reach. There are also toilet safety rails that mount directly to the toilet.
- ▶ Sometimes grab bars can be put in bathrooms with very narrow doors for use when a walker can't be brought in.
- ▶ Grab bars can help with 1-2 steps. 2 steps or more: consider handrails.
- ▶ Apartment buildings and residential motels: have your patients ask. If they agree, they may also install.



# Accessibility and Universal Design

- ▶ We worry more about granite counters and swipe on kitchen faucets than whether we will be able to stay in a house for more than 20 years.
- ▶ Avoid split level or sunken room designs. They may look good when you are in your thirties, but if you have a 6 inch step into your living room, you will need a 6 foot 36 inch wide (with handrails) ramp.
- ▶ Two story houses will be problematic in the future. Consider a bedroom on the first floor that can be converted, down the line, to master bedroom and master bath. Build in features that convert to a stair lift or elevator if necessary in the future.
- ▶ The only time I do a stairlift inside a house, very rare, is when no bathroom and/or bedroom space was available on the main floor.



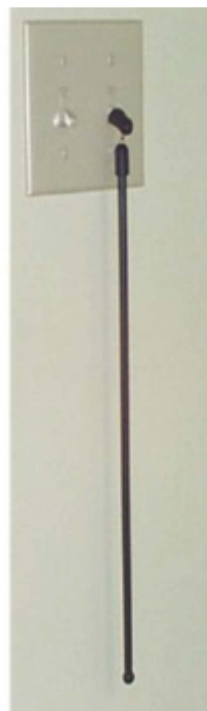
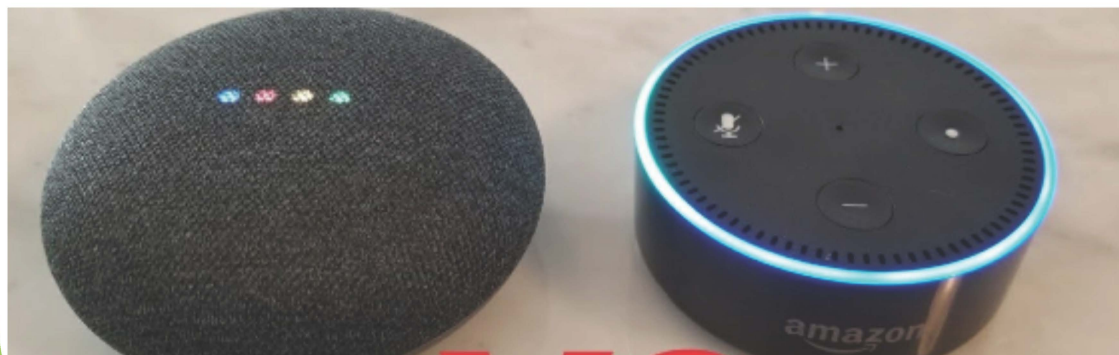


# Accessibility: Doors

- ▶ ADA doors should have a clear width of 32 inches minimum. To measure, the door should be at 90 degrees: that usually means the frame itself is wider
- ▶ In homes, usually outside doors are 35/36 inches, and interior doors from garage are often 31/32. Inside the house, many doors are 27/28 (clear)/29 inches. Some bathroom doors are 22 (clear)-24 inches. Pocket doors are great.
- ▶ Doors can be widened by using offset hinges, removing doors, removing frames, or having construction done to get wider doors.
- ▶ Door and gate hardware should be able to be operated with a closed fist or loose grip (lever) and not require finger dexterity. 5 lbs.

# Smart Homes

- ▶ Read up on smart homes, but
- ▶ Dots, echoes, etc. can now do what we used to spend thousands of dollars to put in EADL.
- ▶ You can put in a light switch extender, or just ask your electronic aide to turn it on.



# Accessibility: Ramps

- ▶ VA provides modular aluminum, but only if veterans have functional needs, usually wheelchair users. Sometimes state, county, private agencies or non profits, churches will assist.
- ▶ Ramps should have running slopes not steeper than 1:12. For every 1 inch of vertical height there should be 1 foot of ramp.
- ▶ Sometimes steeper is OK, convenience and less house disruption...
- ▶ On public buildings, they recommend steps too for people who have endurance issues. Clear width of handrails should be 36 minimum.
- ▶ Rise for any ramp should be 30 inches maximum prior to resting or stopping landings (same direction or turn)
- ▶ Level landing is needed at doors for maneuvering and opening the doors.

# Ramp Handrails

- ▶ ADA: Ramps with a rise greater than 6 inches (ramping a 6 inch step) shall have handrails—34-38 inches.
- ▶ Ramps have curb or barrier protection that is less than 4 inches from finish floor to avoid entrapment or falling off.
- ▶ Ends of handrails should be smooth or returned to ground around 12 inches out at bottom so you don't run out of handrails at the last step.



# Home Entrances (or indoor stairs) with Steps

- ▶ Grab bars, handrails, or ramps at steps.
- ▶ Platform lift, atypically. Less ideal than you would think. Keep steps somewhere if possible.
- ▶ Top of gripping surfaces of handrails are between 34-38 inches
- ▶ Handrail gripping surfaces with a circular, round, or oval cross section need to have a diameter between 1.25 inches minimum and 2 inches maximum to get a “power grip.” 1 x 4s can’t be gripped.



# Accessibility: In and Outdoor Stairways

- ▶ Uniform riser heights
- ▶ 4-7 inches in height, 11 minimum in depth
- ▶ No open risers
- ▶ Avoid thick carpet
- ▶ Consider contrast stripes, anti skid material, yellow electric tape



# Accessibility: Turning Space for Wheelchairs

- ▶ Circular Space: Circular space of 60 inch diameter, minimum. Include knee and toe clearance.
- ▶ T Shaped Space: T shaped space within a 60 inch square
- ▶ These matter for turning around in rooms, getting up next to a toilet, shower area, or bed, roll in shower stalls, entering/exiting ramps or platforms/landings on long ramps, etc.

# Accessibility: ADA Text for Floor Surfaces Applies to Homes

- ▶ Floor and ground surfaces shall be stable, firm, and slip resistant.
- ▶ Non carpeted floors are best for wheelchair users but—
- ▶ For frequent fallers, as long as carpet is not overly padded and in good shape, it can be protective
- ▶ Carpet or carpet tile shall be secure, with no wrinkles or slits, & have a firm pad or no cushion or pad. Pile height shall be ½ inch maximum.
- ▶ Avoid throw rugs unless securely attached, even shower mats now rarely suction down—I like decals or stair tread strips.
- ▶ Install slip resistant flooring in bathroom: Ceramic flooring tile has a rating called COF—coefficient of friction. Tribology is the study of slip resistance.
- ▶ [www.safetydirectamerica.com/COF\\_Lab](http://www.safetydirectamerica.com/COF_Lab)

# Toilets

- ▶ Toilets require floor space next to the toilet for wheelchair transfers
- ▶ Grab bars, counters, toilet safety rails, bedside commodes without the bucket, or toilet surrounds can be used.
- ▶ Taller toilets are easier to transfer from, see DME. 17-19 inches are ideal—called “comfort height.”

The BOT-3000E (Binary Output Tribometer) can measure both static and dynamic coefficient of friction with a variety of test sliders in both wet and dry conditions. It also provides a **printed record** of test parameters and results which can strengthen courtroom credibility. Available with sliders of SBR, Four S, TRL, and leather.



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# General Bathroom Safety and Accessibility

- ▶ Most tubs are 17.5+ inches wide inside. Tubs with high bases are hard to get out of because of the high walls required
- ▶ Clawfoot tubs: may have to build a bench if they insist on keeping.
- ▶ Tubs can be left as is and converted, functionally, to a shower stall with a tub cut out.
- ▶ Insulate pipes under sinks, install nightlights, have a non slip mat
- ▶ A roll-In shower should be at least 30 x 60 inches or 36 x 60, preferably 60 x 60. Thresholds no more than .5 inches high. Regular shower stall 36 x 36 or greater.
- ▶ Prefer larger wheels (20 or 24 inches) on back of wheelchair rather than casters (5 inches) on roll in showers that are not truly “roll in.” The larger the casters in the front the better. I have cut down and angled rubber mats to improve ability to roll a shower chair over the lip.
- ▶ Shower water temperature should be 120 F maximum.

# How to Fund Home Modifications

- ▶ Remind your patients: home modifications are almost always cheaper, and easier, than moving or paying for a nursing home after a fall.
- ▶ County and state may have departments that provide, grants, or assistance or loan programs.
- ▶ VA has HISA or Adaptive Housing Grants \$2000-\$6400 & \$6,355, \$35,593, \$16,217, \$81,080 respectively depending on service connected rating and what the connection is for.
- ▶ Volunteer Organizations and Churches also may provide assistance.



# Agency Issues: Home Health Aids/Agencies

- ▶ Run interference or soften the blows, in advance, for any home health agencies that come in to provide self care or independent living services.
- ▶ They are there for the patient, not the spouse.
- ▶ They can clean the patient-use areas for light housekeeping, but not every room in the house.
- ▶ The word light housekeeping is key. This does not include changing litter boxes, cleaning stoves, scrubbing grout in the bathroom with a toothbrush, hanging curtains, and painting.
- ▶ Encourage communication between patients and agencies.

# Agency Issues: Completing Home Treatment Stakeholders/Provider Shopping

- ▶ Private physicians and providers, VA, Department of Labor Asbestos and Uranium groups, Workman's Comp, specialists, hospice.
- ▶ Be aware of which group can do what. Also, for your agency, set boundaries and behavior/provision expectation and communicate these clearly.
- ▶ Work with partners if appropriate, but beware being manipulated by your partner...

# Agency Issues: What You Get for a Home Health Therapy Consult

- ▶ Pros and cons: Outpatient treatment allows gym and clinic equipment to be used. Home health allows treatment in the actual environment.
- ▶ Problem occurs when home health therapists do not do thorough evaluations with initial objective, measured findings (MMT & ROM/FIMS) and give strong, functionally based goals.
- ▶ I see a lot of time spent on theraband for non-HBPC patients receiving home therapy. I am often told by patients even after several visits they have not yet participated in safety and functional treatment like performing transfers, walking through the house with a recommended ambulation device, or getting in & out of a vehicle.
- ▶ Insurance group, VA, Medicare, Medicaid pay @\$150 an hour for a therapist, but patients only see that therapist for the intake and discharge evaluation. Who comes in between and what do they do?
- ▶ Make your referral goals specific if possible, and don't renew automatically. Ask to see what was done, what was accomplished, and what the new goals are. Even more importantly, see if those goals are desirable and functional. Consider #visits & specific goals to be accomplished.
- ▶ Always be specific about precautions and treatment parameters

# Agency Issues: Community Resources

- ▶ Refer back to funding home modifications.
- ▶ Social work can work with your patients to see what benefits, agencies, or funding sources your patients can avail themselves of.

# Agency Issues: Adult Protection & Hospice

- ▶ Adult Protection: Colorado is a mandatory reporting state now for elder abuse
- ▶ Know the laws of your state
- ▶ Abuse can be physical, emotional, verbal, financial, and neglect. Always good to contact someone or have access to a social worker on your team who can clarify.
- ▶ Hospice: Can assist in those difficult conversations, but you will have to have a difficult conversation to get your patients to allow you to refer.
- ▶ They can provide certain services and oversight
- ▶ Sometimes there can be a disjunction between the patients goals, the ongoing referring provider's goals, and hospice.

# Questions?



# Possible Issues with Remote Evaluations

- ▶ There is a lot of discussion about remote home evaluations or tele-evals. I recommend against this:
- ▶ Therapeutic relationship: During a face to face home visit, the provider can explain the purpose of the evaluation and can elicit more information, honesty, & act as a catalyst to change. The provider can reassure the family the home assessment is not a regulatory visit or entails judgment: it is a consultation and collaboration.
- ▶ Provision of therapy and training in efficient manner: Potential to avoid need for additional visits or training as therapist can provide immediate assessment of ambulation and transfers & training during the course of the evaluation.
- ▶ Safety and Liability: The presence of the therapist during transfer and ambulation assessment, rather than remotely, actually requires less, not more, staff during the assessment. Possible issues with liability if someone else is in the home transferring or ambulating the patient at my request?

# Concerns about “Remote” Home Evaluations

- ▶ Besides:
- ▶ *The safest jobs*
- ▶ Occupational therapist
- ▶ Chance of automation 0.35%
- ▶ Source: The Future of Employment [www.theguardian.com/us-news/2017/jun/26/jobs-future-automation-robots-skills-creative](http://www.theguardian.com/us-news/2017/jun/26/jobs-future-automation-robots-skills-creative) [www.willrobotstakemyjob.com](http://www.willrobotstakemyjob.com)