



Evidence-Based Clinical Assessment Toolkit

ADL Assessment Pack

Basic



LA TROBE
UNIVERSITY



MONASH
University

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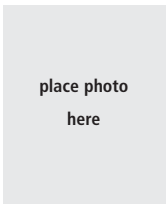
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Mobility	Falls Risk Assessment Tool	9-16
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Tool	Download
Grip Test	Refer to the reference: J Nutritional Health Aging 2012; 16(9): 769-74) A Grip strength Dynamometer tool would need to be purchased and training by the physiotherapist on how to use it



Name:	
DOB:	Room No:

PLACE ID LABEL HERE

RESIDENT NUTRITION DATA CARD

Age: Gender:

Current medical history:

.....

Medications:

.....

Dietary Assessment

- Type of Diet: Full
 High protein/high energy
 Diabetic
 Vegetarian
 Other
- Texture: Soft
 Cut up
 Minced
 Pureed

Allergies:

Food likes:

Food dislikes:

Appetite:

Chewing and Swallowing Ability:

.....

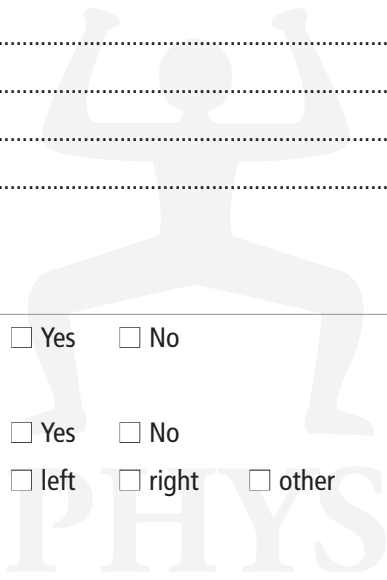
Dexterity:

Eating Assessment

- Does resident require assistance to be fed?: Yes No
- If yes Some assistance Total assistance
- Does the resident require special utensils? Yes No
- If yes 2 handed mug Angled spoon left right other
 Cup with lid Coupe
 Straw Plate surround



Resident Nutrition Data Card



place photo
here

Name:	
DOB:	Room No:

PLACE ID LABEL HERE

PHYSICAL MOBILITY SCALE

Developed by the Gerontology Group of the Australian Physiotherapy Association

Supine to Side lying (*indicate left and right separately)

- (0) No active participation in rolling
- (1) Requires facilitation at shoulder and lower limb but actively turns head to roll
- (2) Requires facilitation at shoulder or lower limb to roll
- (3) Requires equipment (e.g. bedrail) to pull to side lying. Specify equipment used:
.....
- (4) Requires verbal prompting to roll —does not pull to roll
- (5) Independent—no assistance or prompting

Supine to Sit

- (0) Maximally assisted, no head control
- (1) Fully assisted but controls head position
- (2) Requires assistance with trunk and lower limbs or upper limbs
- (3) Requires assistance with lower limbs or upper limbs only
- (4) Supervision required
- (5) Independent and safe

Sitting Balance

- (0) Sits with total assistance, requires head support
- (1) Sits with assistance, controls head position
- (2) Sits using upper limbs for support
- (3) Sits unsupported for at least 10 seconds
- (4) Sits unsupported, turns head and trunk to look behind to left and right
- (5) Sits unsupported, reaches forward to touch floor and returns to sitting position independently

Sitting to Standing

- (0) Unable to weight bear
- (1) Gets to standing with full assistance from therapist. Describe:
.....
- (2) Requires equipment (e.g. handrails) to pull to standing.
Specify equipment used:
- (3) Pushes to stand, weight unevenly distributed, standby assistance required
- (4) Pushes to stand, weight evenly distributed, may require frame or bar to hold onto once standing
- (5) Independent, even weight bearing, hips and knees extended, does not use upper limbs



Physical Mobility Scale

Name:

DOB:

Room No:

PLACE ID LABEL HERE

Standing to Sitting

- (0) Unable to weight bear
- (1) Gets to sitting with full assistance from therapist
Describe:
- (2) Can initiate flexion, requires help to complete descent, holds arms of chair, weight unevenly/evenly distributed
- (3) Poorly controlled descent, stand-by assistance required, holds arms of chair, weight evenly/unevenly distributed
- (4) Controls descent, hold arms of chair, weight evenly distributed
- (5) Independent and does not use upper limbs, weight evenly distributed

Standing Balance

- (0) Unable to stand without hands-on assistance
- (1) Able to safely stand using aid. Specify aid used:
- (2) Able to stand independently for 10 seconds, no aid
- (3) Stands, turns head and trunk to look behind left or right
- (4) Able to bend forwards to pick up object from floor safely
- (5) Single limb balance—left: _____seconds, right: _____seconds

Transfers

- (0) Non-weight bearing, hoist required. Specify:
- (1) Weight bearing, hoist required. Specify:
- (2) Assistance of two persons required
Describe:
- (3) Assistance of one person required
Describe:
- (4) Stand-by assistance/prompting required
- (5) Independent

Ambulation/Mobility

- (0) Bed/chair bound
- (1) Wheelchair mobile
- (2) Ambulant with assistance of two persons
Describe:
- (3) Ambulant with assistance of one person
Describe:
- (4) Stand-by assistance/prompting required
- (5) Ambulates independently. Gait pattern:



FUNC

Physical Mobility Scale

Name:

DOB:

Room No:

PLACE ID LABEL HERE

FALLS RISK ASSESSMENT TOOL (FRAT) INSTRUCTIONS

What is the Falls Risk Assessment Tool

Falls risk assessment tools have the potential to accurately quantify falls risk and provide a sound basis for decision making regarding interventions that can be effective in reducing the likelihood of falls.

In randomised trials in residential care facilities, multiple targeted intervention programs based on comprehensive risk assessment have resulted in significant reduction in falls.

Similar results have been identified in sub-acute hospital settings.

What is the FRAT?

The FRAT is

- a validated Falls Risk Assessment Tool (FRAT) to be completed by nurses in hospital and residential care facilities.
- the outcome of a two year research project, completed in 1999, by the Falls Prevention Service, Peninsula Health. The research sample was 291 patients representing all bed types in the sub-acute and residential settings of Peninsula Health.

Why the FRAT is needed

Completing the FRAT tool achieves the following.

- Provides a focus point for the collation of falls risk relevant information.
- Predicts, with reasonable accuracy, who is most likely to fall, and who is not.
- By identifying those at most risk of falls allows the targeting of resources toward those most likely to fall.
- Identification of individual fall risk factors allows the targeting of preventative strategies.

What the FRAT does

The FRAT has two functions:

A Screening tool

- By obtaining a risk score, the assessor can screen for those patients/residents who are at highest risk of falling.
- and

An Assessment tool

- To identify possible risk factors contributing to the risk of falling.
- Formulate an individual management plan for targeted residents / patients as part of care planning.

Who completes the FRAT?

The FRAT is intended as a nurse administered tool, to be completed within 24 hours of admission.

The reasons are as follows:

In sub-acute and residential care settings, the nurse is most often responsible for the overall coordination of care needs, ie screening for the presence of risks, establishing the need for allied health input. Identifying and managing falls risk is an important part of this process.

The FRAT has been designed and researched with the nurse as the reader. The questions relate to observed or reported behaviours or risk factors that can be recognized by the admitting nurse soon after admission. These act as clinical indicators for the presence of falls risk, and underlying risk factors, that can assist with formulation of an action plan. It is recognized that the admitting nurse may not have all the expertise to solve all the problems and the tool is designed with this in mind to guide decision making regarding immediate actions and referrals required.

Early identification and management of falls risk needs to occur as part of the admission process to avoid delays in meeting care needs.



FUNC

The Falls Risk Assessment Tool (FRAT)

Name:

DOB:

Room No:

PLACE ID LABEL HERE

GUIDELINES FOR COMPLETING THE FRAT

ASSESSMENT PROCESS PARTS 1 & 2

Information required to complete Parts 1 and 2 of the FRAT can be obtained from:

- the patient or resident (if able),
- transfer information from donor facility
- clinical observations in the first 24 hours,
- initial nursing, medical or allied health assessment
- family, or other staff, familiar with the person’s care
- and/or the medical history.

It is therefore recommended that the FRAT be completed as the final part of the initial nursing assessment, with input from the medical and allied health assessment when available. Observations during patient orientation and over the initial shift or feedback from handover will assist with accuracy of completion.

PART 1: FALL RISK STATUS

Purpose:

Completing part one will provide a Fall risk score which will categorize the individuals Fall Risk Status into low, medium or high. Each level has a corresponding protocol.

How to obtain a Score

- Circle one score ONLY in each of the 4 categories in Part 1.
If the person’s condition fluctuates you need to circle the score representing their lowest functional level.

Determine the client’s risk classification level (risk status) by adding the 4 scores from Part 1

Low risk	5–11
Medium risk	12–15
High risk	16–20

Persons with a risk classification of 16–20 require a Fall Alert Protocol to be actioned.

- Complete the **Automatic High Risk Status** section.
This section allows for clinical judgement of risk status, that would not otherwise be detected. These risks are often more acute in nature such as a sudden change in condition where the underlying causes are not yet known, the onset of illness or UTI, recent change in high risk medication etc. A tick in either box in this section will categorize the person at automatic high risk. Persons with automatic high-risk status should be reviewed regularly, at intervals deemed appropriate by the assessor, as the risk can change and settle quickly when issues are addressed.

If ticked, circle high risk at the end of part 1 and list fall alert protocol in the action plan.

RISK CLASSIFICATION

Circle the appropriate level: Low, Medium or High

- Low:** Provide standard care and follow general patient safety principles.
- Medium:** Provide Standard Care but risk factors have been identified and strategies integrated in the care plan to target area of risk. See FRAT PACK, suggested strategies section for options.
- High:** Commence Fall Alert Protocol. Patient has a high likelihood of a fall occurring. See section in Frat Pack-Fall Alert for details of the protocol.



FUNC

The Falls Risk Assessment Tool (FRAT)

FUNC

Name:

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Room No:

PLACE ID LABEL HERE

PART 2: RISK FACTOR CHECKLIST & HISTORY OF FALLS

Purpose

This section includes fall risk factors that, although not found to have a high predictive value for purposes of developing the FRAT tool, are identified as major risk factors for falls in hospitals and residential care. Although Part 1 enables us to categorize an individual according to risk level, part 1 alone tells us nothing about what risk factors need targeting for management.

Instructions

Complete the risk factor checklist by placing a tick in the appropriate boxes.

Risk factors identified need targeting for management by listing in the action plan at the bottom of the page.

HISTORY AND CIRCUMSTANCES OF FALLS:

Although this section is located at the rear of the tool, it is useful to do this first before completing part 1. Information obtained by completing this section will enable accurate completion of the scored section, to establish risk status. The history of falls, particularly if occurring in the donor facility, will highlight whether the falls were associated with particular activities, problems or time of day. Information regarding strategies previously used to reduce risk can also be useful when developing an action plan.

The FRAT research indicated History of Falls as the strongest predictor that a person will fall again and is therefore weighted in the scoring. Accuracy in completing this section is therefore very important as inaccuracies can result in missing the person at high risk.

Instructions

It is recommended that this information be confirmed via a carer or family member.

Non or under-reporting by the patient / resident of falls is not uncommon and can occur for a number of reasons. This includes memory difficulties, passing off as trivial, fear that disclosure may influence staff's perception of their ability to return home).

Explore the following and list

Ask the patient and/or family.

- Were falls a problems before entering hospital and how did they occur- detail findings under this section on the FRAT?
- Seek information from the donor facility or transfer documents re falls in that facility and what seemed to work and not work with regards to risk minimization.
- Find out the circumstances of the most recent falls. Obtain information on time; activity, environment, symptoms, was gait aid used, where available.
- If available, list previous falls on a Fall or communication sheet at the front of the patient file, where history of falls can be listed. If a fall occurs during stay add subsequent falls to this list as a quick reference re falls. Remember this does not replace the need to report the fall, with or without injury, via the incident report form and to forward onto clinical risk.

Document history of falls and strategies on any transfer / discharge summary.

Use the information to appropriate score Part 1 of the FRAT.



Name:	
DOB:	Room No:

PLACE ID LABEL HERE

PART 3: ACTION PLAN

- In the left column, list problems, as identified in Part 1 and 2 of the FRAT.
- Identifies strategies to minimize the risk for each problem. (You can refer to the section "Risk Factor Checklist and Possible Interventions" in the FRAT PACK)
- >Transfer appropriate strategies to care plan.

REVIEW:

Reassessment should occur

- as part of regular team and patient review meetings
- whenever the client's condition changes.
- if a fall has occurred since the last review.

Review involves

Questioning the team whether current status and strategies, should for any reason, be altered.

Team discussion will determine appropriate changes based on the circumstances.

Note:

Review does not involve repeating the FRAT tool. The tool is for initial assessment purposes only to obtain an initial risk profile. Managing falls risk should then become a dynamic process integrated as part of ongoing care

Questions to ask as part of patient review:

Have any issues, observations of patient led to a need to alter current risk status and strategies as listed on the flow chart ?

Are there any additional strategies that need to be considered?

Note:

Decision to remove a fall alert protocol must consider risk at all times of day and therefore be a team decision ie patient may use gait aid safely but still gets confused at night.

If falls relevant information and strategies are appropriately detailed to the care plan then reassessment can be integrated as part of general review of overall care needs.



The Key to Me

FALL ALERT PROTOCOL

WHAT IS FALL ALERT:

Fall alert is the identification of patients /residents at high risk or falls. Patients designated by this protocol are, for various reasons, those identified as being unable to manage their own safety.

Fall alert utilizes 4 strategies:

Orange alert stickers:

Orange armbands:

Specific strategies to minimize the risk or behaviors that contribute to the risk.

Communication at each handover re alert status and strategies in place.

PURPOSE

The purpose of fall alert protocol is to:

- Alert staff on each roster who is prone to falling, and
- Ensure consistency of strategies in place to reduce the risk.

CRITERIA FOR FALL ALERT PROTOCOL

Using the Falls Risk Assessment Tool, all residents/patients identified as high risk (16–20) or Automatic High Risk should be classified as Fall Alert.

PROTOCOL

Name:

DOB:

Room No:

PLACE ID LABEL HERE

- Residents scoring high risk on the FRAT have a corresponding Fall Alert protocol listed in the action plan.
- Orange alert stickers are placed
 - on bed head
 - on the care plan
 - on the alert sheet (front page of the history)
- “Fall Alert” is documented on the handover sheet for the period the patient remains on Fall Alert protocol.
- If agreed by the team as appropriate, the resident is to wear an orange patient arm band. This assists staff to distinguish residents who are mobile and at risk.
- Notify Allied Health that resident has been classified high risk by the FRAT and is on Fall Alert Protocol (per facility protocol).

Additional strategies that may be beneficial

Select the most appropriate strategy/strategies that best meet the needs of the person and which are considered practical within the facility and transfer them to the care plan. Other strategies additional to those listed below may also be identified that are most suited to the person.

- Supervision and/or assistance for certain mobility or ADL tasks. The Occupational therapist and /or physiotherapist can give advice.
- Remove mobile equipment (ie overbed table) from areas frequently walked by the patient.
- Keep clutter around the bed clear (day and night).
- Use of bed / chair sensors, when indicated, to aid monitoring of high-risk persons with impaired cognition.
- Initiate a toileting routine including scheduled night toileting where appropriate.
- Locate person close to nurses station, if possible.
- Call button within reach at all times and ensure prompt responses to call buzzer.
- Regular supervised walking regime.
- Gait aid /mobility review.
- Individual environmental and A.D.L. assessment re additional safety precaution that may benefit.

REVIEW OF FALL ALERT PROTOCOL

Fall alert protocol can be ceased at the teams discretion.

The criteria for removing the fall Alert protocol is the agreement by the team that strategies are in place as part of routine care appear effective in minimizing falls risk.

Behaviours contributing to high risk are no longer present/or minimized.

To cease fall alert protocol

- Inform the resident and reinforce safety precautions
- Remove stickers /arm band (if used).
- Document changed status in the progress notes.
- If deemed necessary, inform the family

Note: Ceasing fall alert protocol does **not** mean ceasing strategies in place to minimize falls risk.



FUNC

The Key to Me



Name:

DOB:

Room No:

PLACE ID LABEL HERE

DISCHARGE PLANNING

- If a person was falling prior to admission to your facility, chances are they may fall when they leave. Referral to the appropriate community follow-up would be essential.
- O.T. home assessment prior to discharge/transfer is recommended with specific focus on what may have contributed to previous falls and to assess the need for a personal alarm if returning home at risk.
- Careful consideration should be given to what type and amount of community supports is required to keep the person safe from falls on return home.
- Provide information to the patient/ resident on discharge regarding where to get help if falls continue.
- Educate the patient re safe participation in activities on return home.



The Key to Me



place photo
here

Name:

DOB:

Room No:

PLACE ID LABEL HERE

FALLS RISK ASSESSMENT TOOL (FRAT)

Part 1—Fall Risk Status

Risk factor	Level	Risk score
Recent falls (To score this, complete history of falls, overleaf)	none in last 12 months one or more between 3–12 months ago one or more in last 3 months one or more in last 3 months whilst inpatient/resident	2 4 6 8
Medication Sedatives, Anti-Depressants Anti-Parkinson's, Diuretics Anti-Hypertensives	not taking any of these taking one taking two taking more than two	1 2 3 4
Psychological Anxiety, Depression Cooperation, Insight or Judgement esp, re mobility	does not appear to have any of these appears mildly affected by one or more appears moderately affected by one or more appears severely affected by one or more	1 2 3 4
Cognitive status MMSE Hodkinson Abbreviated Mental Score or MMSE	m-m score 9 or 10/10 OR intact m-m score 7–8 mildly impaired m-m score 5–6 mod impaired m-m score 4 or less severely impaired	1 2 3 4
(Low Risk: 5–11 Medium Risk: 12–15 High Risk: 16–20)		RISK SCORE: /20

Automatic high risk status (if ticked then circle HIGH risk)

Current Problems:

- Recent change in functional status and/or medications affecting safe mobility (or anticipated)
- Dizziness/postural hypotension

FALL RISK STATUS: (circle)

LOW / MEDIUM / HIGH

Important: If HIGH, commence fall alert

LIST FALL STATUS ON
CARE PLAN/FLOW CHART



FUNC

The Falls Risk Assessment Tool (FRAT)

Part 2—Risk Factor Checklist

Vision	Reports/observed difficulty seeing—objects / finding way around/signs	<input type="checkbox"/>
Mobility	Mobility status unknown or appears unsafe / impulsive / forgets gait aid	<input type="checkbox"/>
Transfers	Transfer status unknown or appears unsafe ie over-reaches, impulsive	<input type="checkbox"/>
Behaviours	Observed or reported agitation, confusion, disorientation	<input type="checkbox"/>
	Difficulty following instructions or non-compliant (observed or known)	<input type="checkbox"/>
A.D.L's	Observed risk-taking behaviours, or reported from donor facility	<input type="checkbox"/>
	Observed unsafe use of equipment	<input type="checkbox"/>
	Unsafe footwear / inappropriate clothing	<input type="checkbox"/>
Environment	Difficulties with orientation to environment i.e. areas b/w bed / bathroom / dining room	<input type="checkbox"/>
Nutrition	Underweight / low appetite	<input type="checkbox"/>
Continence	Reported or known urgency / nocturnia / accidents	<input type="checkbox"/>
Other	Osteoporosis, history fractures	<input type="checkbox"/>

Name:

DOB:

Room No:

PLACE ID LABEL HERE

Part 2—Risk Factor Checklist (continued)

History of falls Note: For an accurate history, consult patient / family / medical records

Falls prior to this admission (home or donor facility) and/or during current stay []

(If ticked, detail most recent below)

Circumstances of recent falls (past residence or current)

Information obtained from

Last Fall: (circle below) (Where?/Comments)

When _____ Trip / Slip / Lost Balance / Collapse / leg/s gave way / dizziness

Previous:

When _____ Trip / Slip / Lost Balance / Collapse / leg/s gave way / dizziness

Previous:

When _____ Trip / Slip / Lost Balance / Collapse / leg/s gave way / dizziness

Previous:

When _____ Trip / Slip / Lost Balance / Collapse / leg/s gave way / dizziness

LIST HISTORY OF FALLS ON ALERT SHEET

Part 3—Action Plan

(For risk factors identified in Part 1 & 2, list strategies below to manage falls risk. See tips on previous pages.)

Table with 2 columns: Problem list, Intervention strategies/referrals

TRANSFER CARE STRATEGIES TO CARE PLAN/FLOW CHART

Completed by: Signature Date

Planned Review date: / /

Review

Falls Review should occur at scheduled Patient Review meetings or at intervals set by the initial assessor

Table with 8 columns: Review Date, Risk Status, Revised Care Plan (Y or N), Signed, Review Date, Risk Status, Revised Care Plan (Y or N), Signed



The Falls Risk Assessment Tool (FRAT)



Module 3: Musculoskeletal assessment

Diagram 7 : Scoliosis



Technique

Musculoskeletal assessment involves moving through the major body areas and muscle groups; inspecting, palpating and testing ROM and strength at each point. Examine the following areas:

- Neck
- Head
- Temporo-mandibular joint (TMJ)
- Spine
- Shoulders
- Elbows
- Wrists
- Fingers
- Hips
- Knees
- Ankles
- Toes.

Inspection

Look at the anterior (front), lateral (side) and posterior (back) surfaces of the body and the size and contour of all the joints.

Assess:

- Skin – colour
- Muscles
- Limbs

- Size and shape
- Symmetry – length, circumference, position and number of skin folds
- Alignment
- Any abnormalities or deformity, such as atrophy, wasting, contracture.

Palpation

- Palpate all joints upper and lower for:
 - Crepitus – this is a crackling or grinding sound and/or sensation, which is felt when two bony surfaces are rubbing together
 - Heat
 - Swelling
 - Pain
 - Muscle tone around joints should be firm without 'boggy' areas or spasticity (increased muscle tone)
- Report any pain or tenderness on palpation
- Place the palm of your hand over joint during ROM assessment to detect crepitus
- Muscle mass
- Muscle resistance and strength.

To test muscle strength, gradual pressure (or resistance) is applied against the normal action of the muscle or joint. The pressure is usually applied to the distal end (end furthest from the body). For example, the elbow flexes towards and extends away from the body at the elbow joint. To test, the examiner would apply pressure just above the wrist to stop this motion. The person should be able to resist the pressure and still carry out the flexion and extension.





Module 3:

Musculoskeletal assessment

Table 1: Range of movement

Muscle strength and tone – if muscle strength is less than 3 then disability is present	
0	No evidence of movement (paralysis)
1	Barely detectable muscle contraction
2	Complete ROM or active body part movement with gravity eliminated (poor ROM)
3	Complete ROM or active movement against gravity, but not against resistance
4	Complete ROM or active movement against gravity and some resistance, but weak
5	Complete ROM or active movement against gravity and full resistance (normal)

Chapter 15: Musculoskeletal system (2012). In Forbes, H., & Watt, E. (Eds.), *Jarvis's physical examination & health assessment [Australian & New Zealand edition (pp. 325-388)]*. New South Wales: Elsevier Australia.

Table 2: Terminology for ROM

Movement	Description
Flexion	Bending a limb; e.g. the elbow
Extension	Straightening a limb
Abduction	Moving a limb away from the midline of the body; abduct = to take away
Adduction	Moving a limb towards the midline of the body; adduct = to add
Pronation	Palm down
Supination	Palm up
Circumduction	Moving in a circle around the shoulder
Inversion	Sole of the foot turns in with big toe pointing up
Eversion	Sole of foot turns out with big toe pointing down
Rotation	Moving the head – looking left, right and straight ahead
Protraction	Sticking chin forward and parallel to ground
Retraction	Pulling chin back and parallel to ground
Elevation	Raising a body part
Depression	Lowering a body part

Chapter 15: Musculoskeletal system (2012). In Forbes, H., & Watt, E. (Eds.), *Jarvis's physical examination & health assessment [Australian & New Zealand edition (pp. 325-388)]*. New South Wales: Elsevier Australia.





Module 3: Musculoskeletal assessment

Assessment of ROM

- Start at the head and work your way down:
 - Get the older person to copy movements that you make
 - Then get them to repeat the movements while your hand is placed over the joint that they are moving (palpation of the joint)
 - Then repeat the ROM against resistance to ascertain strength and tone (you push against the person’s movement)
 - Make sure you support the limb being assessed and that the person is well-supported to avoid falls.

Active and passive ROM

The terms active and passive relate to whether the clinician moves the joint (passive) or the older person moves the joint themselves (active). Ideally when you test ROM and strength, it is with active movement, but if the subjective history or inspection identifies a possible area of pain or a problem, then you should support and anchor the joint (so you control the movement) and gently move it through the ranges. You need to observe and question the person’s response to movement.

Table 3: Assessment of ROM of main body areas

(Please refer to further diagrams provided with workshop handouts and web links)

Temporomandibular joint (TMJ)	
Position	Person seated
Examination	Palpate TMJ and masseter muscles Start distally and work forward Mouth open and closed Assess ROM You can test cranial nerve V (trigeminal) as well
ROM	Ask the person to open their mouth <i>Normal range</i> = a distance of 3–6 cm between the incisors Protrude (stick out, push forward) lower jaw and move side to side <i>Normal range</i> = 1–2 cm sideways movement Stick out lower jaw <i>Normal range</i> = no deviation from mid-line



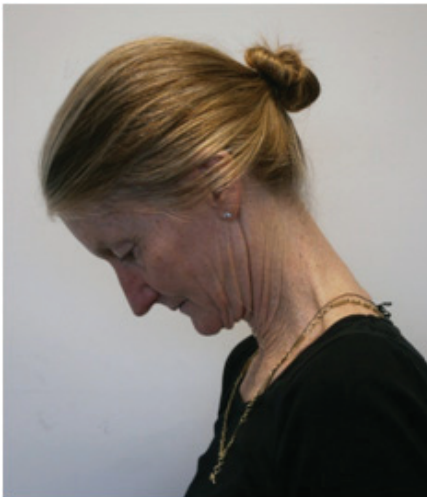


Module 3:
Musculoskeletal assessment

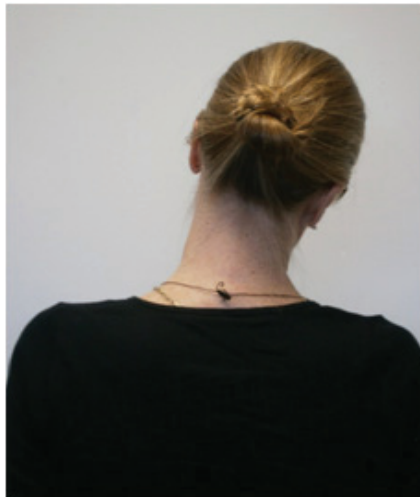
Diagram 8: ROM of the neck (A, Flexion. B, Lateral bending. C, Rotation.)

Neck joint	
Position	Person seated
Examination	Assess ROM <i>Test strength</i> (apply resistance try to push in opposite direction) as person moves through the ranges to test cranial nerve XI (spinal); e.g., shrug the shoulders (shoulder girdle)
ROM	Flexion (chin to chest) <i>Normal range</i> = 45° Lateral (ear to shoulder each side) <i>Normal range</i> = 40° Extension (chin to roof) <i>Normal range</i> = 55° Rotation (chin to shoulder each side) <i>Normal range</i> = 70°

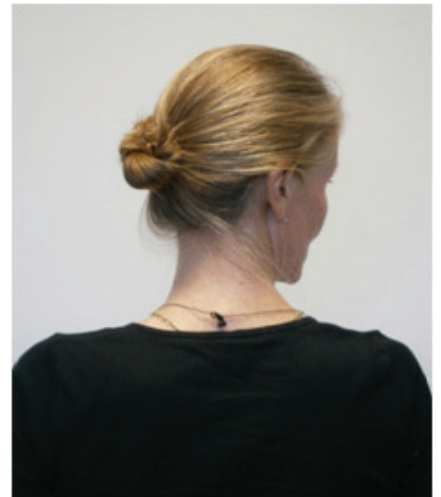
A



B



C

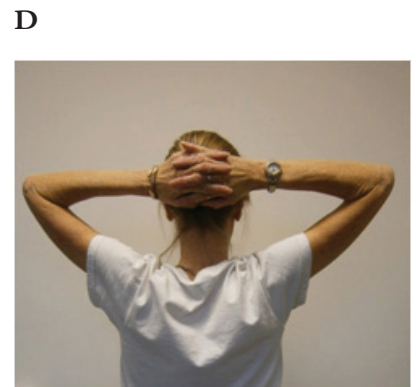




Module 3:
Musculoskeletal assessment

Diagram 9: ROM of the shoulder (A, Hyperextension. B, Abduction. C, Internal rotation. D, External rotation.)

Shoulder joint	
Position	Person standing
Examination	<i>Observe</i> <i>Palpate</i> Assess ROM Assess muscle strength by person holding arms out to side at 90° and you apply a downward pressure and ask them to attempt to resist
ROM	Flexion (arms above head next to ears) <i>Normal range</i> = parallel to floor up to 180° Hyper extension (take arms straight out behind) <i>Normal range</i> = up to 50° Abduction (away from the body) <i>Normal range</i> = 180° Adduction (toward the body) <i>Normal range</i> = 50° Internal rotation – touch back pocket on opposite side <i>Normal range</i> = 90° External rotation – touch back of neck <i>Normal range</i> = 90° Circumduction – arms extend and make circle with full arm



3



Module 3:

Musculoskeletal assessment

Diagram 10: ROM of the elbow (A, Flexion. B, Supination. C, Pronation.)

Elbow Joint	
Position	Person standing
Examination	<p>Observe – hollows either side of joint</p> <p>Palpate (support arm at 70°) move around joint</p> <p>Assess ROM</p> <p>Strength support elbow with one hand and have person flex while you apply resistance at wrist</p>
ROM	<p>Flexion (bend up toward body)</p> <p>Normal range = 160°</p> <p>Extension (bend down away from body)</p> <p>Normal range = 0°</p>

A



B



C



3



Module 3:

Musculoskeletal assessment

Forearm joint	
Position	Person seated
Examination	<i>Observe</i> movement <i>Palpate</i> wrist: is it relaxed and aligned <i>Assess</i> ROM including rotation
ROM	Supination (palm up) <i>Normal range</i> = 90° Pronation (palm down) <i>Normal range</i> = 90°





Module 3:
Musculoskeletal assessment

Diagram 11: ROM of the wrist (A, Flexion. B, Extension. C, Abduction.)

Wrist joint	
Position	Person seated
Examination	<i>Inspect</i> <i>Assess ROM</i> <i>Assess strength</i> with arm lying supine (palm up), hold arm below elbow and apply pressure to palm ask person to flex wrist up.
ROM	Flexion (point fingers to ground) <i>Normal range</i> = 90° Extension (Hyper [point fingers up and back toward body]) <i>Normal range</i> = 70° Adduction (radial flexion [hand flat, move toward body using wrist]) <i>Normal range</i> = 20° Abduction (ulnar flexion [hand flat, move away from body using wrist]) <i>Normal range</i> = 55°

A



B



C





Module 3:
Musculoskeletal assessment

Diagram 12: ROM of the fingers and thumb (A, Flexion. B, Hyperextension. C, Abduction. D, Opposition to little finger.)

Fingers and thumb joints	
Position	Person seated
Examination	<i>Inspect</i> <i>Palpate</i> each joint and finger <i>Assess</i> ROM <i>Strength</i> – ask person to grip your hands as tight as they can. Test separately and together
ROM	Flexion <i>Normal range</i> = 90° Extension (hyper) <i>Normal range</i> = 30° Abduction <i>Normal range</i> = 55° Adduction <i>Normal range</i> = 20° Make a fist Opposition – touch thumb to each finger and base of little finger

A



B



C



D



3



Module 3:
Musculoskeletal assessment

Diagram 13: ROM of the hip (A, Flexion. B, Internal rotation. C, Abduction.)

Hip joint	
Position	Person lying on back and standing for hyperextension
Examination	<i>Inspect</i> <i>Palpate</i> <i>Assess ROM</i>
ROM	Flexion (raise leg knee straight) <i>Normal range</i> = 90° Hyperextension (leg behind) <i>Normal range</i> = 15° Internal rotation (knee bent) <i>Normal range</i> = 40° External rotation (knee bent) <i>Normal range</i> = 45° Abduction (leg straight, swing leg) <i>Normal range</i> = 45° Adduction (leg straight, swing leg) <i>Normal range</i> = 30°

A



B



C



3



Module 3:

Musculoskeletal assessment

Diagram 14: Flexion of the knee

Knee joint	
Position	Person seated and/or lying Person standing
Examination	<i>Inspect</i> quadriceps for atrophy <i>Palpation</i> <i>Assess</i> ROM
ROM	Flexion <i>Normal range</i> = (130°) Extension <i>Normal range</i> = (0°)





Module 3:
Musculoskeletal assessment

Diagram 15: ROM of the ankle and toes (A, Dorsal flexion. B, Plantar flexion. C, Inversion. D, Eversion. E, Flexion of toes.)

Ankle and toe joints	
Position	Person seated and/or lying
Examination	<i>Inspect</i> <i>Palpation</i> <i>Assess ROM</i> <i>Strength</i> dorsi and plantar flexion against resistance
ROM	Dorsal flexion (point toes back toward nose) <i>Normal range</i> = 20° Plantar flexion (point toes to floor) <i>Normal range</i> = 45° Inversion (sole in, big toe off bed) <i>Normal range</i> = 30° Eversion (sole out, big toe on bed) <i>Normal range</i> = 20° Extension (toes fully out) Flexion (toes curled)

A



B



C



D



E





Module 3:
Musculoskeletal assessment

Diagram 16: ROM of the spine (A, Flexion. B, Extension. C, Lateral bending. D, Rotation.)

Spinal joints	
Position	Person standing
Examination	<i>Inspect</i> shape of spine <i>Palpate</i> vertebra <i>Assess</i> ROM
ROM	Flexion (touch floor, knees straight) <i>Normal range</i> = 90° Extension (bend at waist arms parallel with floor) <i>Normal range</i> = 30° Lateral (side) bending (feet together) <i>Normal range</i> = 35° Rotation (turn shoulder as far as can go to each side) <i>Normal range</i> = 30°

Chapter 15: Musculoskeletal system (2012). In Forbes, H., & Watt, E. (Eds.), *Jarvis's physical examination & health assessment [Australian & New Zealand edition (pp. 325-388)]*. New South Wales: Elsevier Australia.

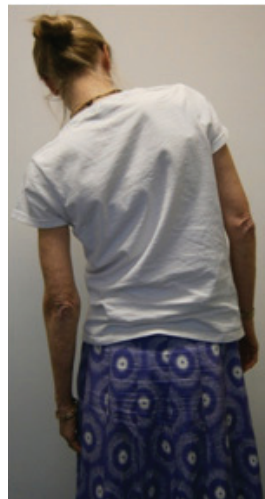
A



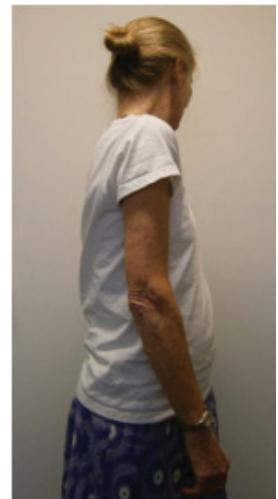
B



C



D



3



Module 3:

Musculoskeletal assessment

For a diagram of ROM of the spine see <http://www.brianmac.co.uk/musrom.htm>

Functional musculoskeletal assessment for the older person involves assessing the person's ability to meet their activities of daily living.

Table 4: Functional musculoskeletal assessment of the older person

Ask the person to:

Action	Common indications of ageing and muscle weakness
Walk with shoes on	Wider base of support; shuffling
Pick up an object from the floor	Bends at waist rather than with legs; uses support, such as furniture, for balance and to help stand up
Stand up from a sitting position	Has a couple of tries to build momentum; upper trunk leans forward and then straightens once they are up; uses arms to push off from chair arms; has feet positioned widely as base of support
Move from a lying to a sitting position	Rolls to edge of bed and then moves legs to floor and pushes upper body off the bed with arms
Put on clothes	Dresses weaker side first. Sits to put stocking/pants on and then stands to pull up. Elevates foot to tie shoes to decrease spinal flexion
Comb hair	Problems with ROM of elbow, forearm and wrist
Write	Problems with manual dexterity and finger-thumb opposition
Walk up and down steps	Up – leads with stronger leg and uses hand rail for support and to pull self up Down – leads with weaker limb, watches feet and may hold rail with both hands.

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