BMAT- Bedside Mobility Assessment Tool

By Amber Perez ADN, BSB, CSPHP

What is BMAT

- BMAT was developed during a multi-hospital SPHM implementation
- BMAT was developed to answer the question; “What type of equipment do I use with my patient?” & “What is my patients level of mobility?”
- BMAT is a validated assessment for SPHM and a functional mobility assessment
- The BMAT may reduce witnessed falls and promote early mobility practices.
- The BMAT is a Nursing tool that recommends equipment for safe patient transfers and mobility
- The BMAT reduces variation in care related to the risk of patient handling and falls

Learning Objectives

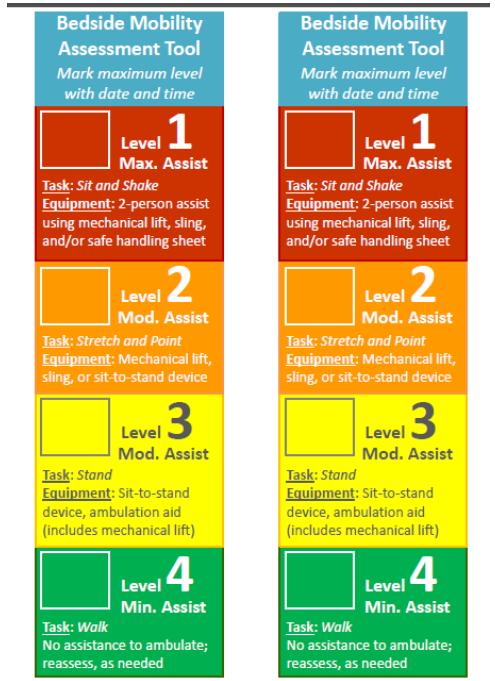
- Knowledge: RN will have the knowledge of the validated Bedside Mobility Assessment Tool (BMAT), communicate patients' mobility status to care team, and assign the appropriate assistive equipment.
- Application: RN will be able to apply assessments in their current care delivery and assign a mobility status communicated to care team, patient, and family members.
- Comprehension: RN will have the ability to quickly determine which equipment to use for each type of task based on the assigned BMAT level.

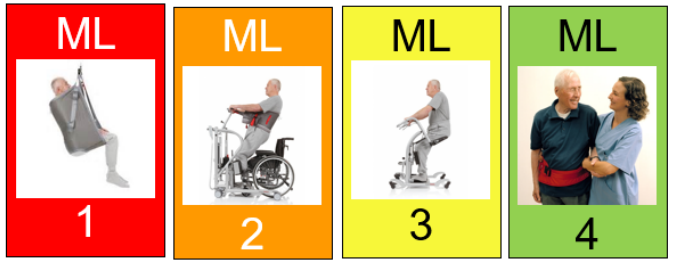
Essential Elements for Success

- Routine assessments performed- BMAT is recommended every shift. A patients mobility level may change as he becomes more tired throughout the day
- Placing appropriate mobility level signage outside the patient room- communication of SPHM needs
- Alert staff of patient mobility needs.
- Reassessment with change of condition or concerns from PT/OT, CNA or PCT
- Integrate BMAT into your daily head to toe assessment

Room signs

- There are a variety of options for making your own room signs, printing them professionally, or purchasing magnets, flags or other visual indicators.
- The visual indicator is an essential element to the success of implementing the tool.
- Signs provides clear communication about a patients abilities to all caregivers.



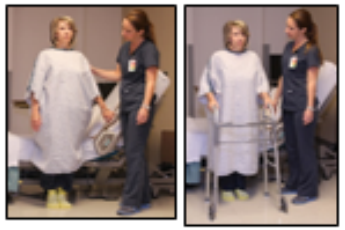


Test	Task	Response	Fail = Choose Most Appropriate Equipment/Device(s)	Pass
Assessment Level 1 Assessment of: -Cognition -Trunk strength -Seated balance	**Sit and Shake**: From a semi-reclined position, ask patient to sit upright and rotate* to a seated position at the side of the bed; *may use the bedrail.* Note patient's ability to maintain bedside position. Ask patient to reach out and grab your hand and shake making sure patient reaches across his/her midline. *If needed, use slider sheet/tube sheet to make it easier for patient to rotate to side of bed; then complete assessment.	**Sit:** Patient is able to follow commands, has some trunk strength; caregivers may be able to try weight-bearing if patient is able to maintain seated balance greater than two minutes (without caregiver assistance). **Shake:** Patient has significant upper body strength, awareness of body in space, and grasp strength.	**MOBILITY LEVEL 1** - Use total lift with sling and/or repositioning sheet and/or straps. - Use lateral transfer devices such as roll board, friction reducing (slide sheets/tube), or air assisted device. **NOTE:** *If patient has 'strict bed rest' or bilateral 'non-weight bearing' restrictions, **do not proceed** with the assessment; **patient is MOBILITY LEVEL 1.***	Passed Assessment Level 1 = Proceed with Assessment Level 2.
Assessment Level 2 Assessment of : -Lower extremity strength -Stability	**Stretch and Point**: With patient in seated position at the side of the bed, have patient place both feet on the floor (or stool) with knees no higher than hips. **Do not attempt to raise the knee if s/p hip replacement; follow hip precautions.** Ask patient to stretch one leg and straighten the knee, then bend the ankle/flex and point the toes. If appropriate, repeat with the other leg.	Patient exhibits lower extremity stability, strength and control. **May test only one leg and proceed accordingly (e.g., stroke patient, patient with ankle in cast).**	**MOBILITY LEVEL 2** - Use total lift for patient unable to weight-bear on at least one leg. - Use sit-to-stand lift for patient who can weight-bear on at least one leg.	Passed Assessment Level 2 = Proceed with Assessment Level 3.
Assessment Level 3 Assessment of: -Lower extremity strength for standing	**Stand**: Ask patient to elevate off the bed or chair (seated to standing) using an assistive device (cane, bedrail). Patient should be able to raise buttocks off bed and hold for a count of five. May repeat once.	Patient exhibits upper and lower extremity stability and strength. **May test with weight-bearing on only one leg and proceed accordingly (e.g., stroke patient, patient with ankle in cast).** **If any assistive device (cane, walker, crutches) is needed, patient is Mobility Level 3.**	**MOBILITY LEVEL 3** - Use non-powered raising/stand aid; *default to powered sit-to-stand lift if no stand aid available.* - Use total lift with ambulation accessories. - Use assistive device (cane, walker, crutches). NOTE: Patient passes Assessment Level 3 **but requires assistive device** to ambulate; standby and set-up assistance required for ambulation; ***patient is MOBILITY LEVEL 3.*** - May use gait belt to help steady and guide movement **NOT to lift** patient.	Passed Assessment Level 3 **AND no assistive device needed** = Proceed with Assessment Level 4. ***Consult with Physical Therapist when needed and appropriate.***
Assessment Level 4 Assessment of: -Standing balance -Gait	**Walk:** Ask patient to march in place at bedside. Then ask patient to advance step and return each foot. **NOTE:** There are ortho and neuro conditions that may render a patient unable to step backward; use your best clinical judgment.	Patient exhibits steady gait and good balance while marching, and when stepping forwards and backwards. Patient can maneuver necessary turns for in-room mobility.	**MOBILITY LEVEL 3** If patient shows signs of unsteady gait or ***fails* Assessment Level 4,** refer back to **MOBILITY LEVEL 3;** ***patient is MOBILITY LEVEL 3.***	**MOBILITY LEVEL 4** MODIFIED INDEPENDENCE **Passed = No assistance needed to ambulate;** use your best clinical judgment to determine need for supervision during ambulation.

Always default to the safest lifting/transfer method (e.g., total lift) if there is any doubt in the patient's ability to perform the task.

Originated: 2011; Adapted from the 'Quick 3' and 'Egress Test';revised: 2/27/12, 3/02/12, 3/07/12, 3/19/12, 4/19/12 Boynton, Teresa OT/L CSPHP, Miller, Meri MS AT-C CIE, Perez, Amber LPN, CSPHA,

Bedside Mobility Assessment Tool

Assessment Level 1- Sit and Shake 1. From a semi-reclined position, ask patient to sit up and rotate to a seated position at the side of the bed **may use the bedrail.* 2. Ask patient to reach out and grab your hand and shake making sure patient reaches across his/her midline		**PASS**= Patient is able to come to a seated position, maintain core strength. Maintains seated balance while reaching across midline. Move on to Assessment Level 2 **FAIL**= Patient unable to perform tasks, patient is **MOBILITY LEVEL 1**
Assessment Level 2- Stretch and Point 1. With patient in seated position at the side of the bed, have patient place both feet on the floor (or stool) with knees no higher than hips. 2. Ask patient to stretch one leg and straighten the knee, then bend the ankle/flex and point the toes. If appropriate, repeat with the other leg		**PASS**= Patient is able to demonstrate appropriate quad strength on intended weight bearing limb(s). Move onto Assessment Level 3 **FAIL**= Patient unable to complete task. Patient is **MOBILITY LEVEL 2**
Assessment Level 3- Stand 1. Ask patient to elevate off the bed or chair (seated to standing) using an assistive device (cane, bedrail). 2. Patient should be able to raise buttocks off be and hold for a count of five. May repeat once.		**PASS**= Patient maintains standing stability for at least 5 seconds, proceed to assessment level 4. **FAIL**= Patient unable to demonstrate standing stability. Patient is **MOBILTY LEVEL 3**
Assessment Level 4- Walk 1. Ask patient to march in place at bedside. 2. Then ask patient to advance step and return each foot. *There are medical conditions that may render a patient unable to step backward; use your best clinical judgment.		**PASS**= Patient demonstrates balance while shifting weight and ability to step, takes independent steps, does not use assistive device patient is **MOBILITY LEVEL 4** **Fail**= Patient not able to complete tasks OR requires use of assistive device. Patient is **MOBILITY LEVEL 3**

BMAT- Pediatrics

Recommended patient population: Patients age ≥ 4 years of age with ability to follow directions

Ensure activity order in place and safety screening clearance before assessing with BMAT

ASSESSMENT LEVEL 1 *SIT AND SHAKE* From a semi-reclined position, ask your patient to sit upright and rotate to a seated position at the side of the bed. Ask patient to reach across midline to shake your hand		**MOBILITY LEVEL 1** DEPENDENT  
ASSESSMENT LEVEL 2 *STRETCH AND POINT* Ask patient to extend leg forward until it is straight at the knee. Ask the patient to point and flex foot/toes. Repeat with other leg if appropriate.	 	**MOBILITY LEVEL 2** MODERATE ASSIST 
ASSESSMENT LEVEL 3 *STAND* Ask your patient to elevate off the bed or chair using an assistive device if needed. Patient should be able to raise buttocks off bed and hold for a count of five.	 	**MOBILITY LEVEL 3** MINIMAL ASSIST  
ASSESSMENT LEVEL 4 *WALK* Ask your patient to march in place at bedside. Then ask patient to advance step and return each foot.	 	**MOBILITY LEVEL 4** MODIFIED INDEPENDENCE 

Mobility Assessment

The results of the mobility assessment will help you determine the type of equipment needed

BMAT LEVEL	Definition
Mobility Level 1	Dependent patient. This patient is unable to move or transfer self
Mobility Level 2	Moderately dependent patient. This patient can come to a sitting position but cannot stand or transfer
Mobility Level 3	Minimal assistance required. This patient can bear weight and may require assistive devices.
Mobility Level 4	Independent. This patient can move and transfer self and requires no patient handling asst.

Mobility Assessment Level 1

Determine baseline assistive equipment used at home.

Sit and Shake

- From a semi-reclined position, ask your patient to sit upright and rotate to a seated position at the side of the bed.
- Ask patient to reach across midline to shake your hand.

Sit and Shake

*The **SIT** portion of the test will help you determine whether your patient has adequate balance and core strength for sitting.*

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Sit and **Shake**

*The **SHAKE** portion of the assessment will test a patients upper body strength and proprioception or or spatial orientation and awareness of body in space.*

Shake for:

- Assessing Balance- proprioception
- Fall Prevention (safety before standing).

Mobility Level 1

Assessment Level 2

Stretch and Point

- Ask patient to extend leg forward until it is straight at the knee.
- Ask the patient to point and flex foot/toes.
- Repeat with other leg if appropriate.

*Remember, if the patient has unilateral restrictions or weakness for example from orthopedic restrictions or weakness after CVA, it is appropriate to measure only one leg.

Stretch and Point

*The **STRETCH** portion of the assessment tests for the minimal quad strength needed to stand.*

The patient must be able to extend his leg independently and repeat with both legs. Exceptions include the following patients:

- Amputee with prosthetics.
- Amputee with one leg weight bearing ability.
- Orthopedic surgical patients with one leg weight bearing ability.
- Other conditions limiting weight bearing ONLY to one side.

Stretch and **Point**

*The **POINT** portion of the assessment tests for conditions such as foot drop*

Your patient must be able to point and flex his foot on the foot or feet he intends to weight bear on.

Exceptions:

- If your patient is unable to perform this step AND he has already been assessed by PT, you may proceed with the steps of the assessment if walking aid is prescribed or it is recommended by PT/OT.
- If no PT assessment is completed discussion with physician and consider requesting a PT consult.

Mobility Level 2

Assessment Level 3

- *If needed, obtain assistive equipment (walker, gait belt, cane).*

Stand

- Ask your patient to elevate off the bed or chair using an assistive device if needed.

  Patient should be able to raise buttocks off bed and hold for a count of five.

Stand

*The **STAND** portion of the assessment tests the patient's ability to come to a standing position and maintain standing for 5 seconds.*

Provide assistive device such as walker, cane, or crutches if needed. Remember to ask whether the patient uses an assistive device at home.

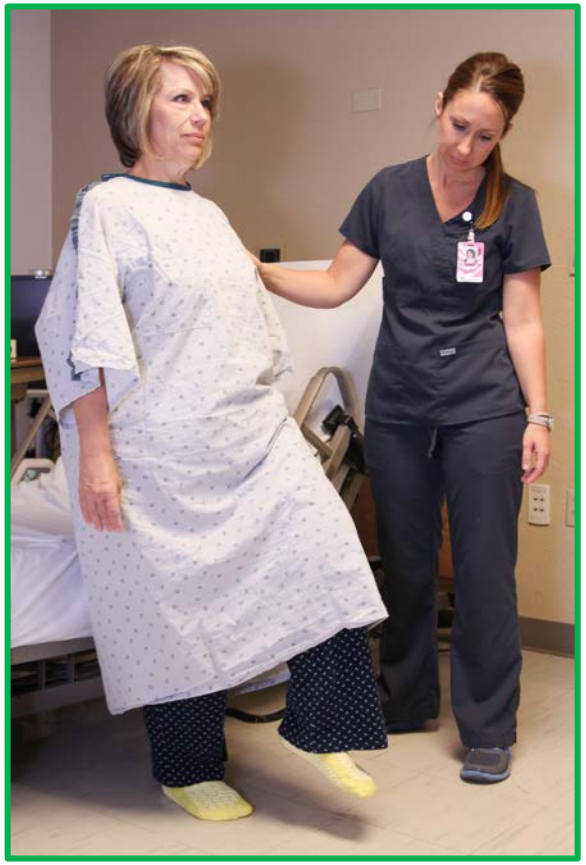
Mobility Level 3

Mobility Assessment Level 4

Walk

- Ask your patient to march in place at bedside.

Then ask patient to advance step and return each foot.



Walk

*The **WALK** portion of the assessment tests for steady standing and walking.*

Ensure that your patient is stable on his feet before you ask him to take a step.

Some conditions cause taking steps forward and backward difficult. Ensure safety and guide the patient back to the edge of bed if your patient appears unstable.

Assessment Level 4

FAIL= Mobility Level 3

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PASS= Mobility Level 4

CALL
DON'T
FALL

BMAT and Therapy Services

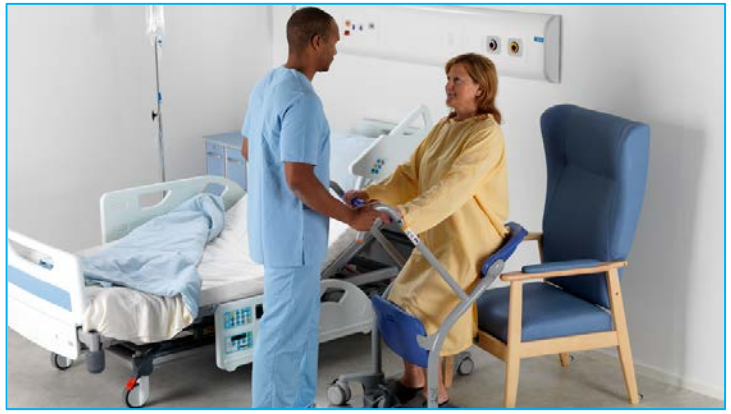
- Therapy evaluations are more complex and intended to help rehabilitate the patient
- The BMAT is a nursing tool
- Collaborate with therapy services to create a plan that includes the therapy goals and SPHM.

Scenarios

- Mr. Sing is an 87 year old CVA patient with R-sided weakness. Mr. Sing is able to come to the edge of bed using the hand rail to sit up. He can shake hands on the unaffected side. Mr. Sing is able to stretch and point his left leg only and he can stand up for 5 seconds. Mr. Sing is unable to take any steps or march in place.
- What mobility level is Mr. Sing?
- **MOBILITY LEVEL 3**
- What interventions are appropriate for transfers out of bed?

MOBILITY LEVEL 3 Interventions

- Non-powered stand aids
- Walker
- Cane
- Crutches
- Stand pivot transfer to WC



Scenario

- 56 year old Mrs. Hansen is an ICU patient recovering from a MVA. She sustained a TBI and multiple wounds and skeletal fractures. Mrs. Hansen is on a ventilator and IV sedation and pain interventions. Mrs. Hansen is non-responsive, flaccid and unable to participate in any movement.

- What mobility level is Mrs. Hansen?
- **MOBILITY LEVEL 1**

- What interventions are appropriate for moving Mrs. Hansen?

MOBILITY LEVEL 1 Interventions

- Safe handling sheet
- Mobile lift and sling
- Friction reducing devices
- Air assisted lateral transfer
- Limb slings

Scenario

- 66 year old Mr. Waters is a patient recovering from a TKA of his left knee. He has no weight bearing restrictions and is post op day 1. The catheter has been removed and hospital protocols require toileting on a commode or toiled to improve mobility. Upon assessment, Mr. Waters is able to come to a sitting position, shake hands and maintain balance and stretch and point both limbs. Mr. Waters is experiencing great pain and unable to come to a standing position on his own, but reports that he needs to use the bathroom.

- What mobility level is Mr. Waters?
- **MOBILITY LEVEL 2**
- What interventions are appropriate for Mr. Waters safe transfer?

MOBILITY LEVEL 2 Interventions

- Identify the mobility level on the signage
- Sit to stand aid

Scenario

- Mr. Williams is a 54 year old male recovering from an appendectomy post op day one. Mr. Williams is able to sit up to the edge of bed, shake hands, stretch and point, and stand. Mr. Williams is able to march in place, take forward and backward steps.

- What mobility level is Mr. Williams?
- **MOBILITY LEVEL 4**

- What interventions are appropriate for Mr. Williams safety?

Mobility Level 4 Interventions

- Call don't fall
- Assess patient understanding of safety awareness
- Assess patient environment for safety (lighting, obstructions, non-slip socks)
- Educate patient regarding risks of falling and signs of instability, remind patient to inform staff if he feels a change in balance and stability

Scenario

- Mrs. Narin is a 72 year old recovering from pneumonia and receiving IV antibiotics. Mrs. Narin is not your patient and no mobility level is posted outside her door. Mrs. Narin rang her call light and is asking for assistance to the restroom. You find Mrs. Narin sitting up in a chair at the bedside, sitting up and not leaning back in the chair. How do you assess Mrs. Narin's level of mobility?

- Begin the assessment where she is. Mrs. Narin demonstrates core strength, sitting unassisted in a chair, not leaning on the chair for support. Start with shake, then proceed with assessment.

Scenario

- Mr. Allen is a 53 year old recovering from a MVA, he has healing rib fractures and is expecting to discharge tomorrow. You walk by his room and see him standing at the bedside, holding onto the rail. No mobility level is posted. How do you assess his mobility?

- The patient demonstrates the ability to come to a standing position, start with asking the patient to sit at the bedside and cross midline to shake your hand, then proceed directly to standing the patient at the bedside facing away from the bed with his thighs touching the bed behind him. Ask the patient if he can let go of the rail and maintain standing, if he shows stability, continue with assessment level 4.

Return Demonstrate….Time to TEACH the B.M.A.T.

Teaching BMAT

- Demonstration
- Return Demonstration

- HANDS ON! Lets Practice…….