

# BMAT Implementation Workbook





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## **BMAT Implementation Workbook- Getting Started**

This workbook is intended to be used to guide a group in implementation efforts for the Bedside Mobility Assessment Tool clinical implementation and integration. Remember that BMAT is a significant change and requires clinical professionals to act and think differently than they may have in the past. This includes PT/OT sharing mobility responsibilities, PT/OT-Nursing collaboration, nursing change in practice, and an overall organizational workflow adaptations. The positive benefits to the staff and the patient will be quickly realized, however, change does not occur quickly. Utilize a change agent or change management tools if your organization has access to these. This can be a valuable compliment to the process. Let's get started!

### **Key Stake Holder Analysis Exercise**

#### **Instructions:**

Your implementation team should consist of a key stakeholder in all relevant departments. Depending on the size of your facility and organization, this configuration may vary. Below is an example of some key stakeholders and their role on the team.

*\*See Implementation Phases Rationale section for definition of roles.*

- CNO- Executive Sponsor. Having an executive level leader involved is essential to success. At times you may experience roadblocks related to budget, accountability, acceptance of the practice change, pushback from physicians etc. This leadership involvement may help your team overcome some of these barriers. Often, the executive sponsor will only be present intermittently and receive progress reports from the team.
- Bio-Medical Services- Equipment concerns/procurement/inventory. The biomedical engineering professionals should have a thorough understanding of the new initiative, coordinate with the team when removing a piece of equipment from service, or repairing and



replacing equipment. When new equipment is added, the bio-medical engineers should be consulted regarding the cost to own and recommendations for quality.

- Physical/Occupational Therapy- Hands-on primary team member. This is a practice change intended to improve collaboration between therapy and nursing. PT/OT Leadership representation is essential. The PT/OT leadership should take lead on PT/OT training. While the BMAT is a more simple assessment than the PT/OT assessment, understanding it and learning the common language will help to improve collaboration. At times, a nurse may choose equipment when a PT performs therapy without, for therapeutic reasons. This must be explained to both disciplines and PT's must also make proper choices to use equipment therapeutically when the risk of injury is present. Often practice changes for PT/OT include recommending the use of equipment to put a patient back to bed after therapy, rather than allowing nursing staff to call PT/OT for this un-skilled transfer. For example, prior to leaving the unit after therapy, the therapist can state to the nurse, "Your patient is up in the chair and should remain there for at least a half hour, I see that he is a BMAT 2, please remember to use the mechanical sit to stand to help him safely back to bed".
- Nursing Educators- Continuing Education. After the initial roll-out of the BMAT, the need to integrate the training and continue to educate new hires and transfers will remain. There should be at least one nursing education champion involved in order to ensure consistency and secure the practice change.
- Nursing Leaders- Primary Team member/Lead- This will most impact the nursing workflow. The nurse leads should take point on the implementation. Ensuring proper implementation into the documentation, communicating with physicians and families, integrating the assessment into the head to toe assessment, ensuring RN competency, clearly differentiating the nursing assistant and RN roles, and accountability will all fall on nursing and this collaboration, leadership, and involvement is essential to success.
- Ergonomics/Injury Prevention, Occupational Safety, or Risk Management. The BMAT promotes Safe Patient Handling and Mobility. The BMAT provides guidance for the nursing professionals related to when to use the equipment. These members can provide baseline and ongoing data measurements. Often time these professionals will lead the initiative from a patient handling injury risk perspective. It is important to collaborate with nursing and therapy



to gain the patient safety perspective as well. BMAT promotes early mobility and safe transfers, this benefit should be a focus of the implementation as well.

- **Transport- Primary member.** Transporters typically work in all departments and may be a valuable resource for helping with compliance audits, peer to peer education, and communication. The transport department will also typically have an accurate assessment of the challenges and patient specific population. Often the transport department will use the BMAT scores to determine a safe method for transfer. See **Implementation Tools** for *BMAT Transport Methods*.
- **Ancillary Department Directors- Consulting team members.** The ancillary departments, like emergency department, OR, Radiology, and outpatient, may not perform the BMAT, but having an understanding of the tool and developing methods for integrating the information may be helpful. BMAT may be used for determining whether a patient is able to transfer himself/herself or if a lateral transfer device is needed, for example.
- **Other Interested Departments-** Consider all of the departments which may be impacted by the implementation. For example, if the EVS department is involved with sling laundering, they may be a key stakeholder. Establishing the importance of the sling availability, communicating the anticipated increased use post implementation, collaboration on process improvements and efficiencies may be better discussed as a team rather than a mention after the fact. If you use disposable slings, the central supply or materials management lead will be a key stakeholder. If ceiling lifts are in the plans for equipment, be sure to include facility services.

Use this form to list your BMAT implementation team members, departments, titles, email, and role and responsibilities. Share the list with the team members and create a group, share site, or email chain to keep up ongoing communication and updates for the team.

### BMAT Implementation Team

Name	Department	Title	Email	Role

## Phases of Implementation

There are 4 phases to BMAT implementation. See the steps and explanation for the phases here:

- **Readiness for BMAT-** This phase addresses the basic components needed before the BMAT should be implemented. Ensuring completion of this checklist will support successful implementation.
- **Planning and Assessment-** Once the Readiness for BMAT is completed, the Planning and Assessment portion will guide you through collecting baseline data, planning the rollout, creating documents and tools, process and workflow determinations, and preliminary education.
- **Implementation-** Implementation includes beginning the assessment and integrating the process change into the current workflow. Audits begin here to help report and ensure compliance.
- **Post-Implementation-** Once implemented it is important to look back and measure the effectiveness of the change. Reassessment and periodic audits and surveys help you to ensure continued success.

The following checklists will help you identify what you have addressed and what items may need to be considered. Often, organizations will use this as a scorecard to determine progress with the implementation plan. It is suggested that all items in the “Readiness for BMAT” phase is either completed or in process before moving to the next phase, and follow the same recommendations for all phases before moving on. Use the *Action Items* column to detail any action items and the responsible party involved. Use this at your team meeting to remind others of their roles, what action items are pending and to plan for completion of open items.

\*See chart in *Implementation Phases Rationale* for information and rationale for each step.

## Readiness for BMAT

TASK	STATUS	ACTION ITEMS
SPHM Policy present	Completed In Process Not Addressed	
Physician activity orders addressed (educate physicians about 'bed rest' order limitations, consider changing order set to encourage mobility)	Completed In Process Not Addressed	
Ceiling mounted or Mobile lifts (1 mobile lift for every 10 dependent patients)	Completed In Process Not Addressed	
Mechanical Sit to Stand (1 STS for every 8 moderate assistance patients)	Completed In Process Not Addressed	
Non-Powered Stand aid (1 for every 12 minimal assist patients)	Completed In Process Not Addressed	
Friction reducing device or air assisted lateral transfer or safe handling repositioning sheets	Completed In Process Not Addressed	
Seated sling (disposable stocked on unit or washable with supply of 2 per total number of dependent patients in unit)	Completed In Process Not Addressed	
SPHM Champion/super-user/peer leader for each shift available to assist in lift training	Completed In Process Not Addressed	
Staff current on SPHM equipment training	Completed In Process Not Addressed	
Facility based SPHM management point of contact engaged in process and SPHM	Completed In Process Not Addressed	



## Assessment and Planning

TASK	STATUS	ACTION ITEMS
Pre-implementation baseline survey <b>*See Tools</b>	Completed    In Process    Not Addressed	
Gather pre-implementation patient data (falls, pressure ulcers, LOS)	Completed    In Process    Not Addressed	
Choose and create BMAT signs and In-Room assessment tools (if assessment not in EMR) <b>*See Tools</b>	Completed    In Process    Not Addressed	
Deploy PT/OT, RN and Non-Licensed BMAT Education- Return demonstration (if required) <b>*See Tools</b>	Completed    In Process    Not Addressed	
Determine process (daily or q shift assessment, assign responsibilities for putting up and taking down signs)	Completed    In Process    Not Addressed	
Determine roll-out date	Completed    In Process    Not Addressed	
Determine process for new staff on unit to receive training on BMAT	Completed    In Process    Not Addressed	
Design patient education sheet to describe the BMAT and what they can expect	Completed    In Process    Not Addressed	

## Implementation

TASK	STATUS	ACTION ITEMS
Begin performing BMAT- Post BMAT signs	Roll-Out Date:_____	
Include BMAT levels in leader rounding (Implementation audits)	Implementation Audits Begin:_____ Opt-Out	
Perform weekly audits (compliance audits)	Compliance Audits Begin:_____ Opt-Out	

## Post-Implementation

TASK	STATUS	ACTION ITEMS
Report audit scores weekly- Set goals for improvement	Completed   In Process   Not Addressed	
Collect patient data and compare for improvement at regular intervals (3 months, 6 months, 1 year)	Completed   In Process   Not Addressed	
Perform Post Implementation survey at 6 months and 1 year post implementation, report results	Completed   In Process   Not Addressed	

## Implementation Phases Rationale

### Readiness for BMAT

TASK	RATIONALE
SPHM Policy present	<p>Policy for Safe Patient Handling and Mobility is important for BMAT success. If SPHM is a policy, the BMAT is a method for supporting the policy and ensuring safe methods of transfer. Many states have legislation related to SPHM and require policy. Regardless of the legislative requirement, implementing a policy is a proactive and necessary step to ensure safe working practices.</p> <p>Many organizations have written into the SPHM policy, the requirement that nurses use a validated nursing mobility assessment to ensure proper safety equipment is being utilized and that a consistent and reliable method for transferring and mobilizing patients is determined.</p>
Physician activity orders addressed (educate physicians about 'bed rest' order limitations, consider changing order set to encourage mobility)	<p>At times the physician's activity orders may present a barrier to performing a mobility assessment. The orders for 'Strict Bed Rest' would prevent a nurse from performing the assessment. If strict bed rest or other mobility orders are part of a pre-checked order set, the clinical informatics team may need to help intervene to change this to an option rather than a pre-check. It is recommended that physician education be developed to ensure an accurate understanding of the purpose and benefits of the BMAT and strategies for improved physician support in the implementation process.</p>
Ceiling mounted or Mobile lifts (1 mobile lift for every 10 dependent patients)	<p>This is based on the 2010 PHAMA guidelines. Your organization should have an equipment solution for each mobility level defined and this recommendation is based on Mobility Level 1</p>
Mechanical Sit to Stand (1 STS for every 8 moderate assistance patients)	<p>This is based on the 2010 PHAMA guidelines. Your organization should have an equipment solution for each mobility level defined and this recommendation is based on Mobility Level 2</p>
Non-Powered Stand aid (1 for every 12 minimal assist patients)	<p>This is based on the 2010 PHAMA guidelines. Your organization should have an equipment solution for each mobility level defined and this recommendation is based on Mobility Level 3</p>

<p>Friction reducing device or air assisted lateral transfer or safe handling repositioning sheets</p>	<p>This is based on the 2010 PHAMA guidelines. Your organization should have an equipment solution for each mobility level defined and this recommendation is based on Mobility Level 2 and 3</p>
<p>Seated sling (disposable stocked on unit or washable with supply of 2 per total number of dependent patients in unit)</p>	<p>This is based on the 2010 PHAMA guidelines. Your organization should have an equipment solution for each mobility level defined and this recommendation is based on Mobility Level 1</p>
<p>SPHM Champion/super-user/peer leader for each shift available to assist in lift training</p>	<p>The successful implementation of the BMAT will promote increase equipment use. Having a trained and competent resource available will help ensure success. The staff should all be current on equipment training and the unit based resource will improve compliance and availability for training.</p>
<p>Staff current on SPHM equipment training</p>	<p>Staff may have seen the equipment at orientation and not used it since. Refreshing the training for the staff is not only often a regulatory requirement, but also an important step to increase user confidence and reduce the risk of errors with using the equipment.</p>
<p>Facility based SPHM management point of contact engaged in process and SPHM</p>	<p>One singular facility based point of contact should be established to field any questions about SPHM and BMAT during the project implementation. Considerations related to patient population specific interventions, patient education, staff compliance and equipment issues should all be directed back to the team, a singular point of contact will ensure effective communication.</p>
<p>Assign roles and responsibilities</p>	<p>The following is a list of suggested roles for your implementation team.</p> <p>Team Lead- Responsible for overall implementation</p> <p>Team Secretary – Keeps record of team meetings, action items, tasks in progress, reports minutes, communication</p> <p>Executive Sponsor- Ensures financial and organizational support for the implementation</p> <p>Data Collection and Reporting- Collect and report baseline and ongoing, patient related and staff related quality metrics</p>

	<p>Marketing Lead- The marketing lead is responsible for designing and creating BMAT signage/In room visual documentation, posters, and other marketing to promote and support the BMAT implementation.</p> <p>Education Lead- Responsible for developing/adopting, scheduling/coordination, deploying and tracking the various BMAT related education pieces (i.e. RN Education, PT/OT Briefing, Unlicensed clinical training, Patient Education, Physician Awareness, Ancillary Department Education.</p> <p>Equipment Manager- Maintains inventory of current equipment, plans future procurement needs, budget and prioritize equipment needs, ensures equipment training compliance, coordinated with Education for lift training, collaborated with Medical Engineering to ensure communication and prioritization of SPHM equipment operation and availability.</p> <p>Operations Lead- Ensures all operational aspects of the implementation are addressed. Includes materials management/central supply for disposable slings, EVS or Linen Supply for washable sling turnaround and unit par level stocking, Collaborates with clinical informatics for BMAT EMR integration, etc.</p>
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## Assessment and Planning

TASK	RATIONALE
Pre-implementation baseline survey	This survey will help you assess your quality improvement from a behavior and education perspective. Suggested questions can be found under <i>Implementation Tools</i> . You will repeat the survey during post implementation and show a measure of the change in attitudes, understanding, and education related to mobility, safety and SPHM. This is a data point typically used to measure the caregiver's response and change, not the effect to the patient.
Gather pre-implementation patient data (falls, pressure ulcers, LOS)	The BMAT may promote positive patient outcomes. Other organizations have experienced reductions in assisted or witnessed falls, reduced pressure ulcer (H.A.P.U.) rates, decreased length of stay, improved discharge disposition and more. Discuss with your team the types of units and patient populations that you are implementing BMAT with and determine

	<p>which patient metrics you want to compare pre- and post- implementation. At the end of the implementation, it is rewarding to show both caregiver and patient positive results from the process improvement.</p>
<p>Choose and create BMAT signs and In-Room assessment tools (if assessment not in EMR)</p>	<p>One of the most important aspects to BMAT is the visual communication. If BMAT signs are posted outside the room and 2 call lights are signaling at once, the signage communicates a priority level based on Mobility. A mobility level 3 patient is much more at risk of falling than a mobility level 1, and without considering other factors, this may prevent falls. In addition any caregiver entering the room is aware of the patient’s mobility status and should not make a spontaneous choice to ambulate a patient with identified limitations without obtaining equipment.</p> <p>If you are not yet at the point of EMR integration, utilizing an in-room BMAT guide can be an effective way to visually document and communicate the assessment.</p>
<p>Deploy PT/OT, RN and Non-Licensed BMAT Education-Return demonstration (if required)</p>	<p>Education for clinical professionals should happen well in advance of roll-out. The nurses should have ample opportunity to practice and have competency completed. PT/OT should develop a collaboration and common language to begin communicating with nursing about mobility in terms of BMAT.</p>
<p>Determine process (daily or q shift assessment, assign responsibilities for putting up and taking down signs)</p>	<p>Q-Shift and change of condition assessments are recommended for acute care facilities with 12 hour shift. The patient may have a change in their mobility status related to exhaustion, medication, etc. Reassessment will help ensure accurate mobility assignment. For acute care facilities operating on an 8 hour shift model. Q-shift and change of condition assessments are recommended for the A.M. and P.M. shifts, then only change of condition BMAT assessment for NOC shift. Most facilities let the nurses use clinical judgement to determine whether a change of condition may impact mobility and trigger a new BMAT assessment.</p>
<p>Determine roll-out date</p>	<p>A definitive roll-out date will help with goal setting, communication, and accountability. Implementation teams will often change the date and push it back related to unforeseen barriers, however having a date will help keep the project moving and create a deadline for education. When a roll-out date is based on “completion of education” the roll-out can be delayed many</p>

	months due to lack of compliance with education. However, a roll-out date will encourage all staff to have education completed before the determined deadline.
Determine process for new staff on unit to receive training on BMAT	After the initial implementation, BMAT should remain a consistent part of the workflow, nursing education should ensure a process for educating new staff to the process. Until BMAT becomes a standardized component of nursing school education, many nurses will not have previous BMAT education or training on mobility assessment. This should be part of new hire orientation or unit based orientation. Involve Human Resources in the discussion as well, to ensure collaborative compliance.
Design patient education sheet to describe the BMAT and what they can expect	This is also a new process for the patient. It is important that they understand what the BMAT is and how it supports their safety. This can be easily integrated into the SPHM patient education document or created as a separate piece. Consult your Admission Department for guidance and assistance.

## Implementation

TASK	RATIONALE
Begin performing BMAT- Post BMAT signs	BMAT Assessments must begin and signs must be posted on the roll-out date. Set a percentage of compliance goal (90%) to measure audits against.
Include BMAT levels in leader rounding (Implementation audits)	As leaders round, include questions about BMAT for the nurses to improve compliance and promote the change. Implementation audits can be found under <i>Implementation Tools</i> , are a quick and easy snapshot of the unit based integration and adoption of the tool.
Perform weekly audits (compliance audits)	The unit based SPHM or Mobility Champions may be well positioned to perform weekly compliance audits. These can be found under the <i>Implementation Tools</i> section. This tools should not be immediately implemented, rather, plan this to begin about 6 weeks after initial rollout. This audit compares the documentation of the BMAT score to the posted BMAT level to the equipment or SPHM intervention used for each task. This will help the team to focus efforts. You can analyze the data to look for trends and intervene with focused education based on recurring deficiencies. For

	<p>example, if you find that the staff are consistently documenting and posting the BMAT Level 2, but the staff fail to utilize the mechanical sit to stand, your team can explore this further. Is the device in working order? Are the slings available? Is the staff competent with use? Is there another barrier to utilizing the device? Use the compliance audit as a data tool for a root cause analysis if certain similar trends are noticed.</p>
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## Post-Implementation

<p>Report audit scores weekly- Set goals for improvement</p>	<p>Weekly scores should be turned into the team, a specified team member should be assigned to manage the data. A unit based, facility based, or organizational wide email may be generated to report the progress and compliance. Publicly reporting the scores may improve compliance. If you report, for example, Med-Surg 80%, Oncology 94%, ICU 88%, Neuro/Stroke 65%, the unit managers will realize how non-compliant or well they are doing and be able to set realistic goals based on the internal benchmarking you provide. This will also keep the numbers, program, and progress in front of leadership. It is important that BMAT is addressed at both the bedside and organizational level.</p>
<p>Collect patient data and compare for improvement at regular intervals (3 months, 6 months, 1 year)</p>	<p>Determine your intervals for comparing both staff injury and patient outcomes data. Report the results to the unit, facility or organization as appropriate. Look for positive and concerning trends. Use the information to readdress areas of concern and improve the process, education, or compliance as necessary.</p>
<p>Perform Post Implementation survey at 6 months and 1 year post implementation, report results</p>	<p>Staff based survey may be repeated once or twice as decided by your organization. Marked differences and improvements should be seen in post implementation survey.</p>



# Implementation Tools

## FAQ's

### BMAT Frequently Asked Questions

#### **1. What if my patient cannot follow directions?**

Patients who cannot follow directions may be considered mobility level one for their safety and yours. However, if you can observe the principles of the assessment without formally performing the assessment you can accurately assign a level of mobility. For example, if you observe the patient sitting up, standing, demonstrating balance and walking across the room with adequate strength and balance, you ARE assessing the steps of the assessment in an observation. Use your best clinical judgement to make the determination about whether this is appropriate for your patient.

#### **2. Can a nursing assistant or therapy assistant perform this test?**

This is a NURSING mobility assessment because it is not concrete. There are many nursing/clinical considerations that must be considered. Like patient diagnosis, co-morbidities, pre-cautions and risks for injury, patient history and progress, and more. Because many considerations may not be information available to the nursing assistant or therapy assistant, the nurse is ultimately taking responsibility to ensure safe mobility practices for her patient and during the assessment may have to make critical nursing decisions. Some organizations will teach the principles of the BMAT to non-licensed caregivers as a tool for mobility, however, only a licensed clinician should make the final determination about the patient's mobility status.

### **3. Can a physical or occupational therapist perform the assessment?**

Yes, these professionals are highly trained in mobility and have more complex assessments available to them. Recommend defaulting to a therapist opinion on the mobility level if there is a discrepancy between nursing and therapy mobility assessments.

### **4. What do I do if my patient has precautions?**

It is most important to remember the principles of the assessment. If your patient has sternal precautions, guide his or her to roll to his side, push through his elbow, drop his legs from the bed and use the bed control to assist to perform mobility level one. Think of safe strategies for assisting the patient to comply with the precautions. (See the surgical tip sheet) Remember, the details on exactly how to do the assessment may vary department to department. A pediatric nurse may determine that a high five across midline is more fun than shaking hands. Teach the principles of each step and think about how you may modify the steps to ensure safety while assessing the principles of each step. (See Patient Population Considerations for more ideas).

### **5. Can I modify the assessment based on my department?**

Yes. The principles of the BMAT must remain constant, however, some of the patient populations will present with barriers when attempting to perform the BMAT straightforward. (See Patient Population Considerations for more information). If you have specific questions about a situation not addressed, contact a member of the BMAT validation study to clarify.

### **6. What if my patient can “stretch and point” but cannot attempt to stand?**

If your patient passes Assessment Level 2, Stretch and Point, but cannot bear weight or attempt to bear weight, the nurse must make a critical judgement. This



patient would likely stay at Mobility Level 2 and require the use of the mechanical sit to stand. Teach your clinicians when they have doubt to consider the results of the mobility level and work backward. Ask himself/herself, “Could my patient use the non-powered stand aid?” If the results of the assessment and the recommendations for equipment seem incompatible, reassess the patient and consider a more conservative mobility level. Remember, the patient will be in many scenarios, at the bedside, in a chair, on a toilet or commode. If the patient cannot come to a standing position without manual lifting, the patient should not be a mobility level 3.

## **7. Why does assistive equipment use (walker, cane or crutches) keep a patient at Mobility Level 3?**

Many organizations would prefer to allow patients who pass assessment level 4, but require a walker, to be considered Mobility Level 4, however, we recommend, for patient safety that this patient be considered a mobility level 3. If the patient requires the use of assistive equipment such as a walker, cane or crutches, and the assistive equipment is out of reach, the patient may be at risk of falling if considered independent. We advise the nurse to talk to the patient and consider allowing this patient to get up independently “IF” the assistive device is within reach and the nurse determines that the patient is safe. This, again, is a nursing judgement and each situation must be considered. It is important to effectively communicate with staff about the “type” of Mobility Level 3 patient you have. Does the person require a non-powered stand aid, or just need stand by assistance or an assistive device. Many organizations will use the patient white board to communicate the specific needs to the patient and the staff.



## 8. If my patient passes mobility level 4, but I have safety concerns, what do I do?

If the nurse does not feel comfortable with the patient having independent mobility, he/she must determine the appropriate level. A patient with safety concerns who passes mobility level 4 should be considered Mobility Level 3. The nurse may then indicate whether stand by assist, gait belt, or assistive devices are needed.

## 9. Is BMAT copyrighted?

No. It was originally derived from common PT/OT training standards, the Quick 3 and Egress Tests to create a more comprehensive test. Then, Banner Health researched the tool for validation. At this time the assessment was called the Banner Mobility Assessment Tool for Nurses. Some of the primary authors and co-investigators of the tool have since left Banner Health. The intention of the validation was to establish a tool that was much needed in the industry to be shared with the SPHM and Early Mobility communities.

Some collaboration agreements exist between authors and vendors, however the tool is FREE. Tools, videos, education and support may be sold by various experts. The tools you have here are copyrighted to Innovative Outcomes Management. For any further questions email a BMAT author or research team member. Amber Perez of IOM is a BMAT author and co-investigator and may answer questions or connect you with other team members. Email: [aperez.iom@gmail.com](mailto:aperez.iom@gmail.com)

## 10. How was BMAT validated?

BMAT was validated on the adult population in Medical and ICU units. The validation included interrater reliability, this measures the tools reliability and tests whether the tool will deliver consistent results regardless of which RN is



using it. The tool was also validated using content expert tool validity. During this phase the nurse and a DPT simultaneously measured the patient's mobility, the nurse using the BMAT and the therapist using her expert opinion. The BMAT levels correlated to the therapist scale of Dependent/Mobility Level 1, Moderate Asst/Mobility Level 2, Minimal Assist/Mobility Level 3, and Independent/Mobility Level 4. During this portion of the assessment the tool was tested to verify whether the BMAT measured basic functional mobility similar to a therapist screening. Expert Content review included review of the tool by various industry, nursing, and therapy experts. Feedback regarding content and language was taken into consideration. Finally, assessments were conducted on the ICU and Medical Units to measure whether the assumed patient mobility scores would be realized (i.e. more dependent patients in the ICU and less dependent patients in the medical units). The findings and details of the validation can be read in the American Journal of Safe Patient Handling Volume

**11. Can BMAT be used for pediatric patients?**

While the BMAT was not specifically validated on the pediatric population, the principles of mobility remain constant for patients over 5 years old. The validation took place at a hospital with no pediatric department. The BMAT may be used with patients under this age, more developmental considerations must be considered. Several organizations have implemented this in the pediatric setting.

**12. How do I get more information or tools for BMAT?**

Visit [www.iom-health.com](http://www.iom-health.com) and request a consultation, phone call or tools.

## COMPLIANCE AUDIT

Percentage of compliance based on number of BMAT signs posted divided by the number of patients present. Report weekly BMAT compliance percentages to SPHM Team or SPHM Champion. Send results to: \_\_\_\_\_

DATE	UNIT	Census/BMAT Signs Posted

## SIGNAGE SAMPLES



The signage samples include:

- A vertical sign for room 704-1 showing 'Mobility Level 3' and 'Allergy'.
- A vertical sign for room 704-2 showing 'Mobility Level 2'.
- Four circular indicators for Mobility Levels 1 (red), 2 (orange), 3 (yellow), and 4 (green).
- Two detailed BMAT sign templates. Each template has a header: 'Bedside Mobility Assessment Tool' and 'Mark maximum level with date and time'. The templates show levels 1 through 4 with their respective tasks and equipment requirements.

Signs may be simple shapes with the number score, include picture references, or may include instructions and explanation for the caregiver. Whether posted in or outside the room consider patient privacy and HIPAA regulations.

## BMAT Implementation Audit

*This audit will help us to understand whether the nurses are accurately assigning the appropriate interventions to the specific BMAT level. The results of this audit will also enable us to properly direct our efforts for Safe Patient Handling and Mobility*

**Directions:** Within the next 2 weeks please complete at least 10 observations. During your typical rounding and activity on the floor, observe a patient handling movement or mobility activity. On the audit form note the date, the posted BMAT score, the BMAT score recorded for the patient in electronic health record (EHR), the type of activity performed and the interventions used, see tables below for specific terminology for activity and intervention. Please send via email to:

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Email Address: \_\_\_\_\_@\_\_\_\_\_.com

DATE	POSTED BMAT	BMAT EHR	ACTIVITY	INTERVENTION

ACTIVITY	DEFINITION
VERTICAL TRANSFER	Bed to Chair, chair to chair, chair to commode, bed to commode etc
LATERAL TRANSFER	Bed to Bed, Bed to stretcher, stretcher to table, etc
BOOSTING IN BED	Helping move a patient up in bed
LIMB HOLDING	Limb holding for wound care, pericare, foley placement, etc
POSITIONING	Turning, bed bathing, occupied linen change etc
AMBULATION	Walking with a patient

INTERVENTION	DEFINITION
Mechanical Total Lift	Ceiling lift or mobile lift and sling, positioning sheet, limb sling etc
Mechanical sit to stand	Powered sit to stand device
Non-powered stand aid	Return, quickmove, rowalker, walker, cane, crutches,
Manual Assist 1 (2,3,4)	No equipment- designate number of employees assisting
FRD	Friction reducing device such as slide sheet, air assisted lateral transfer, roll board, etc
Bed assist	Bed controls such as turn assist intended to perform specific actions

## Bedside Mobility Assessment Tool:

### *Tip Sheet for the Surgical Patient*

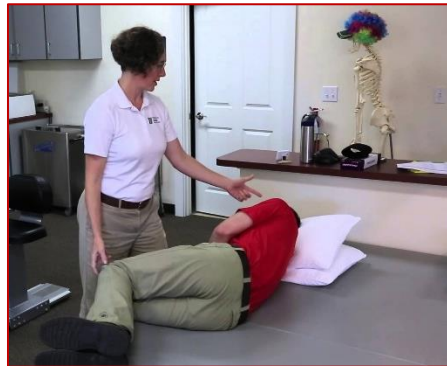
For patients with sternal precautions, large abdominal/thoracic wound or incision, or any other condition that prevent him from coming to a sitting position independently (temporary impairment) you may make additional accommodations to safely assist the patient with the BMAT. This is of primary concern with a patient whom the clinician assumes able to perform advanced mobility (able to sit, stand or walk) but has difficulty sitting up to the edge of bed. The options below offer tips for performing the BMAT on this population of patients.

### Assessment Level One- Sit and Shake

The purpose of the assessment level one is to test the patient's ability to come to a sitting position (core strength) and their sitting balance (proprioception). If your patient is unable to achieve a sitting position independently and you desire to continue the assessment the options below will safely assist the patient to an edge of bed sitting position.

#### OPTION 1- EDGE OF BED- Therapeutic Supine to Sit

- Follow therapy guidelines if in place. For example, patients with sternal precautions may be instructed to roll to their side, push off with elbow and lower legs. Specific instructions may be given for hip precautions and other surgical patients.
- Another option is to use bed controls to assist raising HOB and allow patient to use side rails as permitted.
- You may also offer one hand to the patient for balance or guidance, if the patient is pulling or requiring more support, consider Option 2.





## OPTION 2- EDGE OF BED- Lift Assistance

- Utilize the ceiling lift or floor based total lift and sling. Secure the sling to the sling bar and lift the patient to a bedside sitting position, at the edge of bed as seen here.
- Once the patient is positioned safely at the edge of bed, lower the tension on the lift and if the patient is able to maintain sitting, proceed with the assessment.
- If you have specialty beds in your facility consider Option 3.



## OPTION 3 EDGE OF BED- Specialty Bed

- If your facility has specialty beds that will allow for a full chair position. Activate the patient into a fully seated position
- Guide the patient to stand from the foot of bed as pictured here or pivot to edge of bed after sitting.
- Ensure patient is able to sit unassisted (maintains core strength) and completes the assessment for proprioception (reach across midline and shake hands).



## SAFETY TIPS

*\*Your patient may at this point complete the remaining portions of the BMAT up to his functional ability without additional special considerations. Upon completing assessment level one; refer to the standard methods of performing the BMAT, see next steps(assessment level 3) if patient continues to require assistance for level 3 (i.e. Sternal Precautions).*

*Ensure that your patient has indication of assistance needed on his final level of mobility. For example he may be Mobility Level 3\* Use an asterisks or another symbol to indicate the need for assistance to get to edge of bed. This may be unit specific language or used hospital wide per your facility policy.*

## Assessment Level 2- STRETCH AND POINT

Ask patient to extend legs with stretch and point to demonstrate quad strength.

## Assessment Level 3- STAND WITH ASSIST (for sternal precautions patients)

### OPTION 1- STANDING/WALKING SLING

- If patient is able to complete assessment level 2, secure the standing or walking sling to the patient while in seated position. Secure the sling low on the abdomen, tightening the leg supports and leaving the sling comfortable on the abdomen
- Secure the sling to the mobile or ceiling lift
- Ask patient to hug heart pillow or cross arms over chest, ask patient to lean forward, nose over toes, slowly raise the lift as the patient begins to stand
- Increase the tension on the sling to assist the patient as needed.
- Once standing, assess for stability and ensure patient is not dizzy or unstable prior to removing sling.
- Move on to Mobility Level 4 per standard BMAT instructions.



### OPTION 2- MECHANICAL SIT TO STAND (w removable footplate)

- Once patient passes mobility level 2, obtain a mechanical sit to stand with removable footplate.
- Secure patients feet flat on the floor with non-slip footwear.
- Secure sit to stand sling low on the patient's abdomen, over the rear upper pelvis.
- Ask patient to hug heart pillow or cross arms over their chest.
- Use a sit to stand (like the Summit) with proper ergonomic positioning and avoid using sit to stand with upper abdomen and under arm support. Utilize O2 holder if needed.
- Slowly raise the patient to a standing position.
- Once patient is standing, ensure patient is stable and ensure patient is not dizzy or unstable prior to releasing sling.
- Release sling and remove lift, complete assessment level 4.



Removable footplate









## SAFETY TIPS

*Remember, regardless of the method chosen always assess each step of the BMAT, you may find different methods for assessing patients with unique needs, however ensure the intention of each step is addressed and assessed.*

Remember to always address two primary principles

1. Always address each step of the BMAT
  - a. Assessment Level 1- Core strength & sitting balance
  - b. Assessment Level 2- Quad strength
  - c. Assessment Level 3- Standing stability
  - d. Assessment Level 4- Balance, weight shift, ambulation
2. Always perform tasks with Safe Patient Handling and Mobility in mind, if the task requires unsafe manual handling, a modified method must be determined to ensure staff safety and comply with SPHM policy.
3. If an alternative assessment method is chosen a modified BMAT level must be communicated (i.e. mobility level 3 with walking sling stand assist). Determine the best way for your department to identify and communicate these modified levels.

## BMAT- PICTURE GUIDE: ADULT

<p style="text-align: center;"><b>Assessment Level 1- Sit and Shake</b></p> <ol style="list-style-type: none"> <li>1. From a semi-reclined position, ask patient to sit up and rotate to a seated position at the side of the bed <i>*may use the bedrail.</i></li> <li>2. Ask patient to reach out and grab your hand and shake making sure patient reaches across his/her midline</li> </ol>		<p><b>PASS=</b> 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</p> <p><b>FAIL=</b> Patient unable to perform tasks, patient is <b>MOBILITY LEVEL 1</b></p>
<p style="text-align: center;"><b>Assessment Level 2- Stretch and Point</b></p> <ol style="list-style-type: none"> <li>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.</li> <li>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</li> </ol>		<p><b>PASS=</b> Patient is able to demonstrate appropriate quad strength on intended weight bearing limb(s). Move onto Assessment Level 3</p> <p><b>FAIL=</b> Patient unable to complete task. Patient is <b>MOBILITY LEVEL 2</b></p>
<p style="text-align: center;"><b>Assessment Level 3- Stand</b></p> <ol style="list-style-type: none"> <li>1. Ask patient to elevate off the bed or chair (seated to standing) using an assistive device (cane, bedrail).</li> <li>2. Patient should be able to raise buttocks off be and hold for a count of five. May repeat once.</li> </ol>		<p><b>PASS=</b> Patient maintains standing stability for at least 5 seconds, proceed to assessment level 4.</p> <p><b>FAIL=</b> Patient unable to demonstrate standing stability. Patient is <b>MOBILITY LEVEL 3</b></p>
<p style="text-align: center;"><b>Assessment Level 4- Walk</b></p> <ol style="list-style-type: none"> <li>1. Ask patient to march in place at bedside.</li> <li>2. Then ask patient to advance step and return each foot.</li> </ol> <p><i>*There are medical conditions that may render a patient unable to step backward; use your best clinical judgment.</i></p>		<p><b>PASS=</b> Patient demonstrates balance while shifting weight and ability to step, takes independent steps, does not use assistive device patient is <b>MOBILITY LEVEL 4</b></p> <p><b>Fail=</b> Patient not able to complete tasks OR requires use of assistive device. Patient is <b>MOBILITY LEVEL 3</b></p>

## BMAT- PICTURE GUIDE: PEDIATRIC

Recommended patient population: Patients age  $\geq 4$  years of age with ability to follow directions  
 Ensure activity order in place and safety screening clearance before assessing with BMAT

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

## **SAMPLE SURVEY (PRE & POST Implementation)- 10 questions – approx. 3 minutes total to complete**

1. My role at [facility] is:
  - a. RN/LPN/LVN
  - b. Nursing Assistant
  - c. PT/OT
  - d. Lift Team
  - e. Escort/Transport
  - f. Manager
  - g. Other
2. I work in
  - a. ICU
  - b. Medical/Surgical
  - c. Oncology
  - d. Emergency
  - e. Pediatrics
  - f. Therapy
  - g. Radiology
  - h. Surgery
  - i. Outpatient
  - j. Neuro/Stroke
  - k. Generalized throughout the hospital
  - l. Administration
3. How do you know how your patient moves and mobilizes if there is no PT order?
  - a. I ask the nursing assistant
  - b. I ask the RN
  - c. I ask the patient about their previous level of mobility







- d. I perform an functional mobility assessment tool on all patients and post results
  - e. I ask the patient to get up and evaluate what they are able to do
4. How often do you get your patients up?
- a. Only when the patient requests to get out of bed
  - b. Up for all meals (no eating in bed) and to the bathroom (no bedpan) unless contraindicated
  - c. When I have time to, I often do not have time to get up all patients
  - d. Periodically, when I have time, it varies between patients
  - e. When I am asked to get patient up
5. When do you use SPHM equipment for mobility?
- a. When the Lift Team/nursing assistant or other physical help, is not available
  - b. When the patient is bariatric or plus sized
  - c. Patients requiring equipment do not mobilize
  - d. For all patients unable to independently mobilize
  - e. I prefer not to use SPHM equipment
6. Encouraging patients to get out of bed
- a. Will negatively impact patient satisfaction scores
  - b. Will reduce risks of pressure ulcers, falls, and deterioration
  - c. Is too difficult to perform with the limited time I have to do my job
  - d. May not be safe for most patients
  - e. Is not necessary, patients should stay in bed to heal
7. Mobility is:
- a. Any progression in movement or activity that stimulates the patient and increases strength and endurance
  - b. Ambulating at least 100 feet without assistance
  - c. Leg and Arm exercises
  - d. Moving a person from one place to another
8. BMAT is:
- a. Bedside Material Assessment Team



- b. Bedside Mobility Assessment Tool
  - c. Beginning Mobility and Training
  - d. Basic Movement and Teamwork
  - e. I have never heard of BMAT
9. If I have a question about patient mobility I ask
- a. Lift Team-Lift Coach
  - b. SPH Coordinator
  - c. PT/OT
  - d. Unit Manager
  - e. The Patient or family member
  - f. Patient's Physician
  - g. Any of the above
10. Immobility leads to:
- a. Increased length of stay
  - b. Hospital acquired pressure ulcers (H.A.P.U.)
  - c. Patient falls
  - d. Depression
  - e. All of the Above
  - f. None of the Above



**EQUIPMENT OPTIONS**

<b>MOBILITY LEVEL 1 DEPENDENT</b>	<b>MOBILITY LEVEL 2 MODERATE ASSIST</b>	<b>MOBILITY LEVEL 3 MINIMAL ASSIST</b>	<b>MOBILITY LEVEL 4 MODIFIED INDEPENDENCE</b>
			 <p>Call Don't Fall</p>

## **BMAT Electronic Health Record Integration Build instructions**

### **1. Is your patient able to follow directions?**

(if yes= continue to Question 2, if no=pop up "Your patient is not appropriate for this assessment, please refer to Physicians orders and physical therapy for guidance on safe movement and transfers, revert to safest method available in the interim)

### **2. Does your patient have BLE non-weight bearing or strict bed rest orders?**

(if yes= pop up statement "Your patient is not appropriate for this assessment, please refer to Physicians orders and physical therapy for guidance on safe movement and transfers, revert to safest method available in the interim if no=continue to Questions 3)

### **3. Can your patient sit up, rotate to edge of bed and maintain a sitting position?**

(if yes= continue to Question 4, if no=pop up RED BOX "your patient is mobility level 1, consider using a ceiling lift, mobile lift, sling, safe handling sheet, friction reducing device, or air assisted lateral transfer device for all movement and mobility. Manual handling is unacceptable except in the case of an emergency")

### **4. Can your patient reach across midline and shake hands maintaining sitting balance without caregiver support?**

(if yes= continue to Question 5, if no= pop up RED BOX "your patient is mobility level 1, consider using a ceiling lift, mobile lift, sling, safe handling sheet, friction reducing device, or air assisted lateral transfer device for all movement and mobility. Manual handling is unacceptable except in the case of an emergency")

### **5. Can your patient fully extend each leg (or one leg if intending only to bear weight on one leg) and point and flex his/her foot?**

If yes= continue to Question 6, if no= pop up ORANGE BOX "Your patient is MOBILITY LEVEL 2, consider using a mechanical stand aid, walking sling, platform safety walker, or friction reducing device for transfers and mobility. Manual handling is unacceptable except in the case of an emergency)

### **6. Can your patient stand up and independently maintain standing at bedside for a minimum of 5 seconds?**

(if yes= continue to Question 7, if no pop up YELLOW BOX "your patient is MOBILITY LEVEL 3, consider using a non-powered stand aid, safety walker (as assigned by therapy), or walking sling for movement

and transfer tasks. Encourage patient to perform bed mobility. Manual handling is unacceptable except in the case of an emergency)

## 7. Does your patient use a walker, cane, or crutches?

(if yes= pop up YELLOW BOX 'your patient is MOBILITY LEVEL 3, always provide your patient with assistive device and ensure it is within reach for movement, transfers, and walking activities)

## 8. Can your patient March in place, shift weight forward and back on both sides, while maintaining stability?

(if yes= pop up GREEN BOX, 'your patient is MOBILITY LEVEL 4, use your best clinical judgement to determine whether this patient is safe for independent mobility, and remind your patient to CALL DON'T FALL", if no= pop up YELLOW "your patient is MOBILITY LEVEL 3, consider using a non-powered stand aid, safety walker (as assigned by therapy), or walking sling for movement and transfer tasks. Encourage patient to perform bed mobility. Manual handling is unacceptable except in the case of an emergency) Suggestions for improvements, if your EHR is capable, when the mobility level pop's up, add a field for selecting the equipment and with a relational data base you can feed these results into the activities section of your EMR

### EXAMPLE

## Your patient is MOBILITY LEVEL 1

Place Mobility Level 1 sign at patient room and select all appropriate equipment you will use:

- Ceiling lift/mobile lift Air assisted lateral transfer
- Safe Handling Sheet Friction reducing device
- Sling Limb Sling/Other

\*Manual handling (manual lifting for patient movement, transfers, and mobility) is not permitted except in the event of an emergency.