The Adult Myopathy Assessment Tool (AMAT)

	Item instructions and descriptions	Scoring
1	†**Head elevation endurance**: "Raise your head off of the table." Patient in supine; patient flexes head and neck forward and attempts to maintain self-selected position; test ends when occiput touches table.	**0** < 5 seconds or unable **1** 5-30 seconds **2** 31-60 seconds **3** 61-90 seconds **4** > 90 seconds
2	**Supine to prone**: "Roll onto your stomach without stopping and place your arms at your side." Patient begins in supine with arms at side; test ends when patient is prone with arms at side.	**0** > 10 seconds to attempt transfer or unable **1** completion in > 6 seconds < 10 seconds or rolls without freeing dependent arm **2** completion in > 3 seconds ≤ 6 seconds **3** completion in ≤ 3 seconds
3	**Modified push-up**: "Perform a push-up, ending with your elbows as straight as possible; your knees will touch the table during the movement." Place hands facing forward on table with arm in 0 degrees abduction	**0** unable to do **1** partial elbow extension; sternum in partial contact with table **2** partial elbow extension; sternum NOT in contact with table **3** full elbow extension achieved
4	†**Repeated modified push-up**: "Perform as many push-ups as you can, ending with arms straight, in 2 minutes; your upper chest should touch the table with each repetition." Patients begins with hands on table and shoulders in 0 degrees abduction; self selected pace; test ends if cueing for faulty technique occurs on 2 consecutive attempts; faulty attempts are not counted	**0** unable to do **1** 1 - 10 repetitions **2** 11 - 20 repetitions **3** 21 – 30 repetitions **4** 31 – 40 repetitions
5	**Sit-up**: "Perform a sit-up." Test begins from supine position with knees fully extended and with hands on thighs or across abdomen; tester applies counter balance at distal lower extremities for grades 0-2.	**0** unable to do **1** scapulae and T7 vertebra not in contact with table (rectus phase) with counter balance **2** L1 vertebra not in contact with table: completion of full sit-up (hip flexor phase) with counter balance **3** completion of full sit-up without counter balance
6	**Supine to sit:** "Move to a sitting position at the edge of the table as quickly as you can." Patient begins from supine position; legs straight; arms at side. Test ends when feet touch the floor and torso is vertical.	**0** ≥ 12 seconds to attempt transfer or unable**1** completion in > 7 and < 12 seconds **2** completion in > 4 and ≤ 7 seconds **3** completion in ≤ 4 seconds
7	**Arm raise**: "Raise both hands as high as you can above your head with the elbows straight." Complete within available PROM; apply grade to weakest upper extremity if asymmetry is present.	**0** unable to raise arms to level of acromio-clavicular joint **1** arms raised between acromio-clavicular joint and top of head **2** arms raised above top of head without full elbow extension **3** arms raised above top of head with full elbow extension

8 **†Arm raise endurance**: "Raise both hands forward (shoulder flexion) to 'eye level' with elbows straight." Trunk upright without hyperextension and both feet flat on floor; end test if shoulder flexion drops below 90 degrees; apply grade to weakest upper extremity if asymmetry is present.

0 unable to do or < 5 seconds
1 5 - 30 seconds
2 31 - 60 seconds
3 61 – 90 seconds
4 > 90 seconds

9 **Sit to stand**: "Stand up with as little arm support as possible." Patient seated on exam table with edge bisecting thigh length trunk erect, lower legs vertical and knees at 90 degrees measured via goniometer; Contact between posterior aspect of the legs and table not allowed.

0 unable to do
1 completes transfer with two or more extremities in contact with the exam table or thigh
2 completes transfer with one extremity in contact with the exam table or thigh
3 completes transfer without contact of any extremity with the exam table or thigh

10 **†Hip flexion endurance**: "Raise and hold your knee in the air on your dominant side." Seated with hips and knees at ninety degrees; no shoes; non-dominant foot on floor; trunk upright with edge of table bisecting thighs length; upper extremity support on table allowed; knee height is based on the mid-PROM; test ends when foot contacts the floor;

0 unable to do or < 5 seconds
1 5 – 30 seconds
2 31 – 60 seconds
3 61 – 90 seconds
4 > 90 seconds

11 **†Knee extension endurance**: "Hold your knee as straight as possible on your dominant side." No shoes; non-dominant foot on floor; trunk upright with thigh fully supported on table; test ends when the foot contacts the floor; full available PROM; 2 min limit.

0 unable to do or < 5 seconds
1 5 – 30 seconds
2 31 – 60 seconds
3 61 – 90 seconds
4 > 90 seconds

12 **†Repeated heel rise**: "While standing on your dominant leg only, raise your heel off of the ground." No shoes; self selected pace; test ends when 5th metatarsal base or midfoot does not fully rise from the floor; test ends if cueing for faulty technique occurs on 2 consecutive attempts; faulty attempts not counted; knees remain as straight as possible with no additional flexion during attempts; 2 min or 30 repetition limit.

0 unable to do
1 1 – 7 repetitions
2 8 – 15 repetitions
3 16 – 23 repetitions
4 24 – 30 repetitions

13 **Step-up**: "Place your dominant leg onto the 7-inch step, step forward with as little arm support as possible, and bring the opposite foot onto the step." Stable upper extremity support should be available for both arms

0 unable to do
1 uses two upper extremities
2 uses one upper extremity
3 completes without upper extremity use

† Denotes endurance subscale items.

General Instructions: All AMAT items should be performed in order 1 through 13 with at least one minute rest period after each item. Rest periods exceeding one minute are dictated by the transition time required to set up proceeding AMAT tasks. Test ending criteria should be provided prior to each task attempt. Stand-by assistance is required for all items requiring upright mobility. Duration for all timed tasks should be recorded.

Scoring: Each AMAT item is scored immediately after the task attempt is completed. The AMAT functional subscale (range = 0-21), AMAT endurance subscale (range = 0-24), and AMAT total score (range = 0-45) are calculated after test administration.

Interpretation: AMAT Functional Level (categorical ranks are based on the AMAT total score)
- 1 – low   0-24
- 2 – moderate   25-34
- 3 high   35-45

Abbreviations: ROM, range of motion