

Revised Hammersmith Scale for SMA (RHS)

17.03.2015

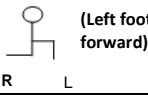
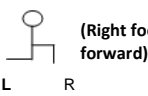
Name	SMA Type	DOB	Assessor
Date of assessment	Albuterol/Salbutamol Y / N		Date of spinal surgery

Please circle **highest** current level of independent mobility:
 None Rolls Bottom shuffles Crawls Walks with KAFO's / AFO's Walks with crutches / frame Independent walking

Comment.....
 LBC = Limited by contracture *WHO separate scoring at end of RHS

Test	Instruction	2	1	0	L B C	Comments	RHS Score	HFMSE Score
SITTING	1* Sitting Using plinth / floor. (Back / feet unsupported)	Can you sit on the plinth/chair without using your hands for support for a count of 3?	Sitting unsupported: Ring or 90/90	Maintains seated position via propping with hand/s: Ring or 90/90	Unable to sit	WHO 1* <input type="checkbox"/> Long sitting	1*	
	HFMSE 1 Plinth/ chair sitting Can be over the edge of plinth or on plinth / floor. Record the best you see	Can you sit on the plinth / chair without using your hands for support for a count of 3? (Back unsupported / feet +/- support)	Able to sit using no hand support for a count of 3 or more	Needs one hand support to maintain balance for a count of 3	Needs two hand support to maintain balance Unable to sit			1.
	HFMSE 2 Long Sitting Legs straight = knees maybe flexed, knee caps pointing upwards, ankles <10cm apart	Can you sit on the floor / plinth without using your hands for support and with your legs straight for a count of 3	Able to sit on floor / plinth with legs straight without hand support for a count of 3	Able to sit on floor / plinth with legs straight propping with one hand support for a count of 3	Able to long sit using two hands for a count of 3 Or unable to sit with straight legs			2.
	2 Hands to head in sitting	Can you show me how you get your hand/hands to your head? (hands touch head above level of ears/eyebrows)	Able to bring both hands to head at same time – arms free from side without flexing head or trunk	Able to bring one hand to head – arms free from side without flexing head or trunk <input type="checkbox"/> R <input type="checkbox"/> L	<input type="checkbox"/> Using compensations – flexing head & trunk or "crawling" hand/s <input type="checkbox"/> Unable to bring hand to head	Sitting position described: <input type="checkbox"/> 90/90 <input type="checkbox"/> Ring <input type="checkbox"/> Long	2.	
	HFMSE 3 One hand to head in sitting Hand touch head above level of ears	Can you get one hand to your head without bending your neck	Able to bring one hand to head. Head and trunk remain stable	Can only bring hand to head by flexing head	Unable to bring hand to head even using head and trunk movement			3.
	HFMSE 4 Two hands to head in sitting Hands touch level above ear	Can you lift both hands up at the same time, to your head, without bending your neck?	Able to place both hands on head arms free from side. Head and trunk remain stable	Able to place hands on head but only using head flexion or side tilt or crawling hands up or one at a time	Unable to place both hands on head			4.
	3 Sitting to lying	Can you lie down in a controlled/safe way from sitting?	Able to lie down through side lying or using clothes in a controlled/safe way	Able to lie down by going forwards and rolling sideways, or through prone in a controlled/safe way	Unable or completes in uncontrolled/unsafe way		3.	
	HFMSE 10 Sitting to Lying	Can you lie down in a controlled way from sitting?	Able to lie down in a controlled fashion through side lying or using clothes	Able to lie down by flopping forwards and rolling sideways	Unable or falls over			10.
	SUPINE	4 Adduction from crook (hook) lying – supine hips @ 45°, knees @ 90°, feet hip width apart. Passively abduct leg	Can you bring your leg back to the middle and hold this position for a count of 3?	Able to adduct to bring 1 leg back to neutral	Holds crook lying position for a count of 3	Unable to maintain/achieve starting position. <input type="checkbox"/> R <input type="checkbox"/> L	4.	
		5 Right hip flexion in supine	Can you bring your right knee to your chest? Try to go as far as you can	Full hip flexion achieved	Initiates right hip and knee flexion (>10% of available range of motion)	Unable	Flexion contracture > 15 ° present? Hip Y <input type="checkbox"/> N <input type="checkbox"/> Knee Y <input type="checkbox"/> N <input type="checkbox"/>	5.
HFMSE 21 Right hip flexion in supine		SAME AS ABOVE	SAME AS ABOVE					21.
6 Left hip flexion in supine		Can you bring your left knee to your chest? Try to go as far as you can	Full hip flexion achieved	Initiates left hip and knee flexion (>10% of available range of motion)	Unable	Flexion contracture > 15 ° present? Hip Y <input type="checkbox"/> N <input type="checkbox"/> Knee Y <input type="checkbox"/> N <input type="checkbox"/>	6.	
HFMSE 22 Left hip flexion in supine		SAME AS ABOVE	SAME AS ABOVE					22.
7 Lifts head from supine	Can you lift your head to look at your toes keeping your arms folded for a count of 3?	Can lift head up through neck flexion and holds for a count of 3	<input type="checkbox"/> Can lift head with compensatory movements for a count of 3 <input type="checkbox"/> Can lift head up momentarily through neck flexion (< a count of 3)	Unable		7.		

	Test	Instruction	2	1	0	L B C	Comments	RHS Score	HFMSE Score
SUPINE	HFMSE 17 Lifts head from supine	SAME AS ABOVE	Head lifted off the surface in mid-line towards chest	Head is lifted but through side flexion or with no neck flexion	Unable				17.
	8 Supine to side-lying (end position leading leg ends up on top of other)	Can you roll onto your side? Note: Onto side = shoulders perpendicular to floor, trunk and hips in line with body		Able to roll onto side	Unable to roll onto side in any direction		<input type="checkbox"/> R <input type="checkbox"/> L	8.	
ROLLING	HFMSE 5 Supine to side-lying	SAME AS ABOVE	Able to ½ roll from supine both ways	Can ½ roll only one way <input type="checkbox"/> R <input type="checkbox"/> L	Unable to half roll either way				5.
	9 Rolls supine to prone	Can you roll from your back to your tummy? Try not to use your arms	Rolls fully into prone without pulling/pushing on arms	Rolls fully into prone by pulling/pushing on arms	Unable to roll into prone in any direction. Does not initiate or complete		<input type="checkbox"/> R <input type="checkbox"/> L	9.	
	HFMSE 8 Rolls supine to prone over R	Can you roll from your back to your front in both directions?	Turns to prone with free arms to the right	Turns to prone by pulling/pushing on arms	Unable to turn into prone				8.
	HFMSE 9 Rolls supine to prone over L		Turns to prone with free arms to the left	Turns to prone by pulling/pushing on arms	Unable to turn into prone				9.
	10 Lifting head from prone	Can you lift your head up keeping your arms by your side for a count of 3	Lifts straight up, arms down by sides for a count of 3	Lifts straight up arms forward for a count of 3 	Unable or lifts less than a count of 3				10.
PRONE	HFMSE 12 Lifts head from prone	SAME AS ABOVE	SAME AS ABOVE						12.
	11 Prone; prop on forearms	Can you prop yourself on your forearms with your head up (not holding your head) For a count of 3	Achieves position and holds head up independently for a count of 3	Maintains position with head supported on hands for a count of 3	Unable or holds for less than a count of 3			11.	
	HFMSE 11 Props on forearms	Can you prop yourself on your forearms and hold for a count of 3?	Able to achieve prop on forearms with head up for a count of 3	Holds position for a count of 3 when placed	Unable				11.
	HFMSE 13 Prop on extended arms	Can you prop yourself up with straight arms for a count of 3?	Able to prop on extended arms, head up for a count of 3	Holds position when placed for a count of 3	Unable				13.
	12* Four-point kneeling/crawling	Can you get onto your hands and knees and then crawl?	Crawls moving all 4 limbs at least 2 times in a row	Achieves four-point kneeling	Unable		WHO 2*	12.	
	HFMSE 15 Four-point kneeling	Can you get onto your hands and knees with your head up and hold for a count of 3?	Achieves four-point kneeling. Head up for a count of 3	Holds position when placed for a count of 3	Unable				15.
	HFMSE 16 Crawling	Can you crawl forwards?	Able to crawl forwards Moves all four points twice or more	Moves all four points only once	Unable				16.
	13 Rolls prone to supine	Can you roll from your tummy to your back? Try not to use your arms	Rolls fully into supine without pulling/pushing on arms	Rolls fully into supine by pulling/pushing on arms	Unable to roll into supine in any direction. Does not initiate or complete		<input type="checkbox"/> R <input type="checkbox"/> L	13.	
ROLLING	HFMSE 6 Rolls prone to supine over R	Can you roll from your tummy to your back in both directions?	Turns to supine with free arms to the right	Turns to supine using arms to push / pull with	Unable to turn to supine				6.
	HFMSE 7 Rolls prone to supine over L	Can you roll from your tummy to your back in both directions?	Turns to supine with free arms to the left	Turns to supine using arms to push / pull with	Unable to turn to supine				7.
	14 Lying to sitting	Can you get from lying (supine) to sitting?	Able via supine / side lying using: <input type="checkbox"/> 1 hand <input type="checkbox"/> 2 hands	Able by using strategies: <input type="checkbox"/> Turns into prone or towards floor <input type="checkbox"/> Utilises momentum/pulls on both legs	Unable				14.
SITTING	HFMSE 14 Lying to sitting	Can you get from lying to sitting without rolling to your tummy?	Able by using side lying	Turns into prone or towards floor	Unable				14.
	15 Sit to Stand (Starting in a 90/90 position using a Plinth / Bench / Chair)	Can you stand up from the chair / bench keeping your arms folded if you can?	Able to stand up without using arms (keeping arms folded, feet do not move)	Stands by using strategies: (circle relevant) Uses hands on legs/chair Turns Prone / Widens Base	Unable				15.

Test	Instruction	2	1	0	L B C	Comments	RHS Score	HFMSE Score
STANDING	16* Cruising/ supported stand	Can you walk holding on around furniture? <input type="checkbox"/> R <input type="checkbox"/> L	Cruise at least 5 steps around furniture	Stands supported for a count of 3	Unable to stand supported	WHO 3 & 4*	16*	
	HFMSE 18 Supported standing	Can you stand using one hand for support for a count of 3?	Can stand using one hand support for a count of 3.	Able to stand with minimal trunk support (not hip) for a count of 3.	Can stand with hand support but needs knee/hip support in addition for a count of 3. Or unable			18.
	17* Standing	Can you stand without holding onto anything for the count of 3?	Stands <u>upright</u> and <u>symmetrically</u> , without compensation for a count of 3	Stands but with some degree of compensation for a count of 3	Cannot stand independently, needs support	WHO 5*	17*	
	HFMSE 19 Stand unsupported	Can you stand without holding on to anything for a count of 3?	Can stand independently for more than a count of 3	Stands independently for a count of 3	Stands only momentarily (less than a count of 3) Or unable			19.
WALK / RUN	18* Walking	Can you walk without using any help or aids? Show me	Takes at least 5 steps unaided	Able to take < 5 steps unaided	Unable	WHO 6*	18*	
	HFMSE 20 Stepping	Can you walk without using any help or aids? Show me	Able to take more than 4 steps unaided	Able to take 2 – 4 steps unaided	Unable			20.
	19 Runs 10m	Can you go as quickly and safely as you can to(give 10 m marker) "Ready steady GO"	Can run - both feet off the ground	Speeds up walk but always maintains one foot on the floor	<input type="checkbox"/> Walks with no extra speed <input type="checkbox"/> Only with aids <input type="checkbox"/> Unable	TIME:.....seconds	19.	
STANDING	20 Squat down and up	Can you squat down and stand up again? Pretend you are going to sit on a very low seat - only go as far down as you are able to get up from on your own	Full squat down (without using hands) and up* (with/without using hands) At least 90° achieved at knees/ hips *must be able to get up from final range	Initiates squat in both knees (10° to <90°) with controlled movement +/- using hands on self <input type="checkbox"/> Using hands	Unable		20.	
	HFMSE 28 Squat	Can you squat? Pretend you are going to sit in a very low seat	Squats with arms free	Initiates squat (more than 10%) , uses arm support	Unable to initiate			28.
	21 Stand to sit on floor	Can you sit on the floor in a controlled/ safe way from standing? Try not to use your arms	Able to sit down arms free in a controlled manner	Sits on floor using hands on floor/body	<input type="checkbox"/> Uses furniture <input type="checkbox"/> Unable		21.	
	HFMSE 27 Stand to sit	Can you sit on the floor in a controlled way? Try not to use your arms.	Able to sit down with arms free and no collapse	Sits on floor but uses arms or crashes	Unable			27.
MAT/FLOOR	22 High kneeling	Can you kneel like this (high kneeling) for a count of 10?	Maintains high kneeling without holding on for a count of 10	Maintains high kneel with one arm support for a count of 10	Unable		22.	
	23 High Kneeling to <u>Right</u> half kneel  (Left foot forward) R L	Can you bring your LEFT leg up so that your foot is flat on the ground without using your arms and hold for a count of 10?	Able to achieve and maintain position without arm support for a count of 10	Maintains half kneel with one arm support for a count of 10 With: <input type="checkbox"/> support <input type="checkbox"/> no support	Unable		23.	
	HFMSE 23 High kneeling to <u>Right</u> half kneel	Can you bring your <u>left</u> leg up so that your foot is flat on the ground without using your arms and hold for a count of 10?	Arms used for transition, maintains arms free in half kneel for a count of 10	Maintains half kneel with arm support for a count of 10	Unable			25.
	24 High Kneeling to <u>Left</u> half kneel  (Right foot forward) L R	Can you bring your RIGHT leg up so that your foot is flat on the ground without using your arms and hold for a count of 10?	Able to achieve and maintain position without arm support for a count of 10	Maintains half kneel with one arm support for a count of 10 With: <input type="checkbox"/> support <input type="checkbox"/> no support	Unable		24.	
	HFMSE 24 High kneeling to <u>Left</u> half kneel	Can you bring your <u>right</u> leg up so that your foot is flat on the ground without using your arms and hold for a count of 10?	Arms used for transition, maintains arms free in half kneel for a count of 10	Maintains half kneel with arm support for a count of 10	Unable			24.

	Test	Instruction	2	1	0	L B C	Comments	RHS Score	HFMSE Score
MAT/FLOOR	25 Rise from floor	Can you get up from the floor using as little support as possible and as fast as you can? Stand up as quickly as possible when the instruction "GO" is given	Achieves rise from floor without hands (any unsupported method)	Able to get up from floor using hands on floor and/or body	<input type="checkbox"/> Able to get up from floor using furniture/ assistance <input type="checkbox"/> Unable to get up from floor using any method		If uses ½ kneel: <input type="checkbox"/> R (L foot forwards) <input type="checkbox"/> L (R foot forwards) Further detail: TIME:.....seconds	25.	
	HFMSE 25 High kneeling to stand leading with Left leg (through right half kneel)	Can you stand up from this position starting with your <u>left</u> leg without using your hands? May need demonstration	Able with arms free	Able to shift weight off both knees (with or without arm support)	Unable				25.
	HFMSE 26 High kneeling to stand leading with Right leg (through left half kneel)	Can you stand up from this position starting with your <u>right</u> leg without using your hands? May need demonstration	Able with arms free	Able to shift weight off both knees (with or without arm support)	Unable				26.
SINGLE LEG STAND	26 Stand on one leg – Right	Can you stand on your right leg for a count of 3?	Able to stand in a relaxed manner (no fixation) for a count of 3	Stands but either momentarily or needs a lot of fixation e.g. by knees tightly adducted or other trick	Unable			26.	
	27 Stand on one leg – Left	Can you stand on your left leg for a count of 3?	Able to stand in a relaxed manner (no fixation) for a count of 3	Stands but either momentarily or needs a lot of fixation e.g. by knees tightly adducted or other trick	Unable			27.	
	28 Hops – Right	Can you hop on your right leg?		Distinct hop: clears forefoot and heel off floor	Unable			28.	
	29 Hops – Left	Can you hop on your left leg?		Distinct hop: clears forefoot and heel off floor	Unable			29.	
STAIRS	30 Ascend stairs 4 standard stairs	Can you walk up the steps? If support is needed you may only use one rail (can use two hands to one rail)	Independently (without support/rail) ascends using alternating pattern	<input type="checkbox"/> Alternating pattern with one support (one rail/hand on body) <input type="checkbox"/> Marking time with/without support	Unable			30.	
	HFMSE 30 Ascends 4 stairs with rail	Can you walk up the steps? You can use one railing	Ascends 4 stairs with railing, alternating feet	Ascends 2-4 stairs, one rail, any pattern	Unable to ascend 2 stairs using one rail				30.
	HFMSE 32 Ascends 4 stairs without rail	Can you walk up the steps? This time try not to use the railing	Ascends 4 stairs, arms free, alternating feet	Ascends 2-4 stairs, arms free, any pattern	Unable to ascend 2 stairs arms free				32.
	31 Descend stairs 4 standard stairs	Can you walk down the steps? If support is needed you may only use one rail (can use two hands to one rail)	Independently (without support/rail) descends using alternating pattern	<input type="checkbox"/> Alternating pattern with one support (one rail/hand on body) <input type="checkbox"/> Marking time with/without support	Unable			31.	
	HFMSE 31 Descends 4 stairs with rail	Can you walk down the steps? You can use one railing	Descends 4 stairs, with railing, alternating feet	Descends 2-4 stairs, one rail, any pattern	Unable to descend 2 stairs with one rail				31.
	HFMSE 33 Descends 4 stairs without rail	Can you walk down the steps? This time try not to use the railing	Descends 4 stairs, arms free, alternating feet	Descends 2-4 stairs, arms free, any pattern	Unable to descend 2 stairs arms free				33.
STEP	32 Climbs box step – Right	Can you step onto the top of the box using your right leg first?	Faces forwards, climbs up – no support needed	Goes up sideways or needs support	Unable			32.	
	33 Descends box step – Right	Can you step down from the box using your right leg first?	Faces forward, climbs down controlling weight bearing leg. No support needed	Goes down sideways or skips down or needs support	Unable			33.	
	34 Climbs box step – Left	Can you step onto the top of the box using your left leg first?	Faces forwards, climbs up – no support needed	Goes up sideways or needs support	Unable			34.	
	35 Descends box step - Left	Can you step down from the box using your left leg first?	Faces forward, climbs down controlling weight bearing leg. No support needed	Goes down sideways or skips down or needs support	Unable			35.	

Test	Instruction	2	1	0	L B C	Comments	RHS Score	HFMSE Score
JUMP	36 Jump forwards 30cm (12")	<i>Can you jump as far as you can, with both feet, from this line all of the way to the other line?</i>	Jumps forward and lands with two feet simultaneously moving forward at least 30cm (12")	<input type="checkbox"/> Jumps with two feet simultaneously but lands one at a time moving forward/up travelling < 30cm (12") <input type="checkbox"/> Jumps and lands with two feet simultaneously moving forward < 30cm (12")		Unable to initiate jump	36.	
	HFMSE 29 Jump 12" (30cm) forward	<i>Can you jump as far as you can, with both feet, from this line all of the way to the other line?</i>	Jumps at least 12", both feet simultaneously	Jumps between 2- 11", both feet simultaneously		Unable to initiate jump with both feet simultaneously		29.
Total							/69	HFMS** /40 HFMSE /66

**HFMS score calculated with HFMSE items 1 to 20 only

*WHO DEVELOPMENTAL MILESTONES		Qualifier met:
W1. Sitting without support: Child sits upright with head erect for at least 10 seconds. Child does not use arms or hands to balance body or support position.		Y <input type="checkbox"/> N <input type="checkbox"/>
W2. Hands and knees crawling: Child alternately moves forward or backward on hands and knees. The stomach does not touch the supporting surface. There are continuous and consecutive movement, at least 3 in a row.		Y <input type="checkbox"/> N <input type="checkbox"/>
W3. Standing with Assistance: Child stands in upright position on both feet, holding onto a stable object (e.g. furniture) with both hands without leaning on it. The body does not touch the stable object, and the legs support most of the body weight. Child thus stands with assistance for at least 10 seconds.		Y <input type="checkbox"/> N <input type="checkbox"/>
W4. Walking with Assistance: Child is in upright position with the back straight. Child makes sideways or forward steps by holding onto a stable object (e.g. furniture) with one or both hands. One leg moves forward while the other supports part of the body weight. Child takes at least 5 steps in this manner.		Y <input type="checkbox"/> N <input type="checkbox"/>
W5. Standing Alone: Child stands in upright position on both feet (not the toes) with the back straight. The legs support 100% of the child's weight. There is no contact with a person or object. Child stands alone for at least 10 seconds.		Y <input type="checkbox"/> N <input type="checkbox"/>
W6. Walking Alone: Child takes at least 5 steps independently in upright position with the back straight. One leg moves forward while the other supports most of the body weight. There is no contact with the person or object.		Y <input type="checkbox"/> N <input type="checkbox"/>
Total WHO Milestones Achieved:		/ 6

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Is this test a true reflection of the subjects ability Y N If no please detail why

Comments