	Computer Sports Medicine, Inc.						
	Title:	Performing a HUMAC NORM Mock Test					
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Medical Solutions	Rev:	А	Effective Date:	3/02/06			
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	Page 1 of 6						

1.0 Purpose

1.1 The purpose of this document is to define the procedure for performing a NORM mock test using the HUMAC program.

2.0 Scope

2.1 These procedures are to be followed during the installing of HUMAC/NORM systems.

3.0 Definitions

3.1 N/A.

4.0 Responsibility

4.1 This procedure applies to all employees that have responsibility for installing HUMAC NORM Systems.

5.0 Procedure

5.1 Create a Patient



- 5.1.1 Click the **Patient** button Patient
- 5.1.2 From the **Patient Selection** screen, click the **New** button.
- 5.1.3 From the **Patient Background Information** screen, enter **CSMIService** as the Patient's Last Name and the system **Serial Number** as the ID. Click **OK** to continue.

Patient Background Infor	mation		
Ger	neral	Injury/Group	
Last, First, MI	CSMI Service		ОК
ID	CS7770-0000		
Birth date			Cancel

5.2 Select a Pattern



5.2.2 From the **Pattern Selection** screen, single click **Knee Extension/Flexion** and click the **OK** button.

🕸 ні	JMAC2004 [CSMI Service,] - [Pattern Selection]			
File	Run Report Database Utilities	Help			
Patien	it Test Exercise Report Neu	M ?	Mode	Setup Right 60 d/s Con [24 ft-lbs] 60 d/s Con [24 ft-lbs]	Torque 0 Angle 0 Speed 0
	Joint	Motion	Specifier	_	
	Ankle	Inversion/Eversion			v
	Ankle	Plantarflexion/Dorsiflexion	Prone		<u> </u>
	Ankle	Plantarflexion/Dorsiflexion	Supine		
	Chest	Extension/Flexion			•
	Elbow	Extension/Flexion			Lancel
	Forearm	Pronation/Supination			
	Нір	Abduction/Adduction			Halp
	Hip	Extension/Flexion			Heip
	Hip	Internal Rotation/External Rotation			
►	Knee	Extension/Flexion			
	Knee	Extension/Flexion	Prone		
	Knee	Internal Rotation/External Rotation			

5.3 Select a Protocol

- 5.3.1 Click the **Delete** button to delete all sets in the displayed protocol.
- 5.3.2 Click the **Add** button to add a new set.
- 5.3.3 Program the set as follows:

Parameter	Setting
Mode	Isokinetic
Action	Con/Con
Set Termination	1 Rep
Set Rest	0
Trial Reps	0
Trial Rest	0
Speed EXT/FLX	60/15
Cushion	0
Concentric Torque Limit ADBS/ADDS	500/500
Eccentric Torque Limit ADBS/ADDS	0/0
Torque Threshold	0

Protocol				
Mode		Con (EXTS) Con (EXTS) Con (EXTS) Con (FLXS) Ecc (EXTS)	/ Con (FLXS) / Ecc (EXTS) / Ecc (FLXS) / Ecc (FLXS)	UK Cancel
Set Termination 1 Rest 0	Repetitions	Trial Reps Reps Rest		C Help
EXT EXT FLX	60 - 15 -	Cushion	0 _	
FLXS	500	Eccentric □ EXTS=FLXS EXTS FLXS Torque Threshold		

- 5.3.4 Click **OK** to save the Set.
- 5.3.5 Enter **Mock Test** as the **Description** in the Protocol Selection screen.
- 5.3.6 Click **OK** to save the Protocol.

@ HUMAC2004	1 [C	SMI Service,] - [Protocol Sel	ection]			
File Run Report	t D)atabase Utilities Help				
Patient Test	Exe	ncise Report Neutral Help		EXTS FLXS	Setup Right 60 d/s Con [24 ft-lbs] 60 d/s Con [24 ft-lbs]	Torque 0 Angle 0 Speed 0
Protocol 2 Speed Protocol (60/180)				•		
Description		Mock Test				ОК
Γ		Mode	Setting	Termination	SetRest	
	•	Isokinetic Con/Con	60 - 15 deg/sec	1 Repetitions	0 sec	N 🚺 🛛
						Cancel

- 5.4 Performing the Test
 - 5.4.1 From the Test Status screen, click the **Left** side. Click **Single Set**.

HUMAC2004 [CSMI Service	,] - [Status]						_ 🗆 🗙
File Run Report Database Utili	ties Help						
Patient Test Exercise Report	Neutral Help				Mode EXTS FLXS	Setup Left 60 d/s Con [24 ft-lbs] 60 d/s Con [24 ft-lbs]	Torque 0 Angle 0 Speed 0
Mode Isokinetic Con/Con	Setting 60 - 15 deg/	Termination 1 Repetitio	Set Rest 0 SeC	Left Not Tested	<mark>Right</mark> Not Test	ed C Right C Left	ОК
						Single Set	Preview

- 5.5 Dynamometer Settings
 - 5.5.1 Set the **ROM Stops** at Teal "**V**" and White "**F**".

- 5.5.2 Install the **Hip/Knee adapter** at the **37** setting. Remove any pads from the adapter.
- 5.5.3 Click **OK** to save the settings.

Patient Setup			
 Position the ROM stops. Attach the input adapters. 	*Ext G	*Flx M	
S. Place the patient on the NORM.	Support Input A	dapter	
Knee/Hip Pad Contralateral Limb Stabilizer Knee/Hin Adapter			Cancel

5.6 Anatomical Zero

- 5.6.1 Position the arm against the White "**F**" stop.
- 5.6.2 Click **OK** to set the Anatomical Zero.

Set Anatomical Zero		
Move Limb to Anatomical Zero		
Enter offset (if needed)	0 deg	<u> </u>
Extension 0°		Cancel

- 5.7 Set ROM Limits
 - 5.7.1 Position the arm against the White "**F**" stop and click the **EXT** button.
 - 5.7.2 Position the arm against the Teal "V" stop and click the **FLX** button.
 - 5.7.3 Click the **Set ROM** button.
 - 5.7.4 Click **OK** to save the settings.

Set ROM Limits			
Extension	Software Stops Track Patient ROM EXT	Set ROM	ОК
135 Flexion	FLX 134	Clear ROM	Cancel
	134	Mirror ROM	C Help

- 5.8 Perform the Test
 - 5.8.1 The HUMAC will instruct you to place the arm in full Flexion. Position the arm straight down and place the single 25 pound calibration weight on the adapter. Move the arm against the Teal "V" stop. The feedback display will appear.

- 5.8.2 Perform a single repetition by raising the arm to the White "**F**" stop. After you reach the stop, allow the arm to begin falling smoothly.
- 5.8.3 After the arm moves to straight down, if the feedback display is still showing, gently move the arm against the Teal "V" stop and release the arm.



5.8.4 Repeat the test for the Left side.

- 5.9 Printing the Report
 - 5.9.1 From the Status screen, click the **Preview** button.

🕸 HI	JMAC2004 [CSMI Servic	e,] - [Status]						
File	Run Report Database Ut	ilities Help						
Patien	t Test Exercise Report	Neutral Help				EXTS FLXS	Setup Left 60 d/s Con [530 ft-lbs] 15 d/s Con [530 ft-lbs]	Torque 0 Angle 125 Speed 0
	Mode	Setting	Termination	Set Rest	Left	Right	Side	
	Isokinetic Con/Con	60 - 15 deg/	1 Repetitio	0 sec	Tested	Not Teste	d 🔿 Right	
							 Left 	ОК
							Single Set	Preview

5.9.2 The HUMAC will display a short report. Verify the **Flexion** torque is 35 ± 2 ft-lbs (45 to 50 nm).



5.10 Ending the Mock Test.

5.10.1 Click the **Print** button to print the test.

- 5.10.2 Click **OK** to close the **Print Preview** window.
- 5.10.3 Click **OK** to exit the **Test Status** screen.
- 5.10.4 Click **Yes** to the "Not all test were run" message.
- 5.10.5 Click **OK** to exit the **Print Report** screen.
- 6.0 Related Documents and/or Attachments