

## 1 **Supplementary appendix**

### 2 *Point-of-Care MRI*

3           The device mobility is controlled by a joystick that maneuvers the battery-powered  
4 wheels. The imager also rests on casters that can be moved manually if needed. The device  
5 consists of permanent magnets, i.e. the magnet is always on. The device has a scanning mode  
6 that is used when the patient is positioned within the device and ready to scan (i.e., the device is  
7 turned on) and a transport mode during which the power to the scanner is turned off .

8           The scanning operations are controlled by an iPad (Apple, Cupertino, CA). To enable  
9 ease of use and negate the need for an experienced MR technologist, the controller simply allows  
10 the user to select the desired sequences and the ability to view them in real time. The scanning  
11 parameters for each sequence are preset and cannot be modified.

12           The device itself is self-shielding and hence life-support equipment, including ventilators,  
13 intravenous fluid pumps, and physiologic monitors did not impair image quality, nor was there  
14 any risk to such equipment from the MRI. A neon-green ring opens above the machine,  
15 representing the five Gauss (5G) boundary (~2.5 ft from the center of the device). When the ring  
16 is not opened the operator must use stanchions or signage to delineate this boundary. The neon  
17 ring was opened up during transport and during the scanning process to ensure ferrous objects  
18 and electronic devices lie outside this line, to ensure safety and minimize interference with  
19 imaging. The device is FCC Class A compliant; therefore, any other equipment that is Class A  
20 compliant and is outside the 5G boundary can be used while scanning. The device is CISPR 11  
21 group 2 compliant; therefore, any other equipment that is CISPR 11 group 1 and are outside the

22 5G boundary can be used while scanning. Group 1 devices include most medical devices  
23 including devices such as ECMO, dialysis, and LVAD machines.

24 The MRI can obtain diagnostic imaging data in as little as five minutes, although a full  
25 set of sequences takes longer.

## 26 *Image Acquisition*

27 Imaging was performed with an eight-channel head coil. The imaging protocol consisted  
28 of 3D FLAIR, T1W, and T2W sequences acquired in the axial plane with an in-plane resolution  
29 of  $1.5 \times 1.5 \text{ mm}^2$  and a slice thickness of 5 mm. Axial DWI ( $b=800 \text{ s/mm}^2$ ) and a non-DWI ( $b=0$   
30  $\text{s/mm}^2$ ) with a resolution of  $2 \times 2 \times 5 \text{ mm}^3$  were acquired to calculate an ADC. Additionally, a  
31 T2W coronal image was also acquired. Thirty-six slices were used in all sequences to provide  
32 whole-brain coverage. The scan time for each sequence in a study are summarized in Table 3.  
33 Standard MRI acquisition times are included for comparison.

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