| University Health™                           | Policy #: Rad Proc 14. 14. 35                    |
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| SUBJECT: DBS PROTOCOL POST                   | Effective: 10/1/2013<br>Reviewed: 2/2015: 2/2017 |
| APPROVED BY: Eduardo Gonzalez-Toledo, MD PhD | Page 1 of 1                                      |

Purpose: To provide MRI staff with approved protocol for performing an DB protocol postMR.

**EXAM: DBS PROTOCOL POST** 

ORIENTATION: HEAD FIRST/SUPINECOIL: HEAD (T/R COIL ONLY)

| PLANE              | 3 PLN    | T2-WEIGHTED FSE        | 3-dimensional GRE        |
|--------------------|----------|------------------------|--------------------------|
|                    | LOC      | (5 mm Slice Thickness) | (1.5 mm Slice Thickness) |
| SEO                | GRE      | FSE XL                 |                          |
| MODE               | 2D       | 2D                     |                          |
| IMAGING<br>OPTIONS | SEQ/FAST | FC/NPW/TRF/FAST        |                          |
| TE                 |          | 90 ms                  | 9 ms                     |
| TR                 |          | 4700 ms+               | 33 ms                    |
| TI                 |          |                        |                          |
| FLIP ANGLE         |          |                        | 35                       |
| ETL                |          | 10                     |                          |
| BW                 |          | 15.63                  | 15.63                    |
| FOV                | 24       | 26                     | 26                       |
| SLICE<br>THICKNESS | 10       | 5                      | 1.6                      |
| SLICE<br>SPACING   | 5        | 1                      | LOCS/SL 114              |
| Frequency          | 256      | 384                    | 256                      |
| Phase              | 128      | 224                    | 160                      |
| NEX                | 1        |                        | 0.75                     |
| PHASE FOV          | 1        | 4                      | 1                        |
| FREQ DIR           | UNSWAP   | A/P                    | A/P                      |
| FLOW COMP<br>DIR   |          | FREQ                   |                          |
| SHIM               | AUTO     | AUTO                   | AUTO                     |
| PHASE<br>CORRECT   | OFF      | ON                     | OFF                      |

NOTES: Order: "MR brain" (no contrast) with "DBS Protocol to view lead placement." USE ONLY A TRANSMIT-RECEIVE HEAD COIL APPLIED SAR CAN ONLY BE UP TO 1/10 (0.1) W/kg. LIMIT GRADIENT Db/Dt to 20 TESLA PER SECOND OR LESS. IF DBS UNIT IS ON, IT MUST BE TURNED OFF PRIOR TO MR EXAM.

Contraindication: Do not scan using a full body transmit radio-frequency (RF) coil, a receive-only head coil, or a head transmit coil that extends over the chest area. Performing MRI with this equipment can cause tissue lesions from component heating, especially at the lead electrodes, resulting in serious and permanent injury including coma, paralysis, or death

Note: Additional sequences may be requested at the discretion of the Radiologist monitoring the exam.