Study Layout for EchoGPS

Under this protocol, 240 subjects will undergo echocardiogram twice:

8 nurses, 30 unique subjects per nurse. In the parlance of the MRMC, this is the “doctor-patient” layout, rather than the “fully-crossed” layout.

Number of sonographers unknown and not restricted to 30 subjects per sonographer, therefore a sonographer is not necessarily paired with a single nurse.

Example of Clinical Parameter Assessment(Patient-level evaluation)

Table 1 Clinical Parameter= Qualitative Visual Assessment of Left Ventricular Size

{repeat for 9 other clinical parameters}

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **MRMC**  **nomenclature** | **Readers:**  **Mode A** | **Readers:**  **Mode B** |  | | | | |  | **Binary Outcome** |
|  |  |  | **Is Image Quality sufficient to evaluate the clinical parameter? (1=Yes, 2=No)** | | | | | **Aggregate image quality across 5 cardiologists** |  |
| **Patient ID** | **Nurse assigned**  **to acquire STUDY echocardiography** | **Sonographer assigned to acquire**  **CONTROL echocardiography** | **Cardiologist**  **Judge 1** | **Cardiologist**  **Judge 2** | **Cardiologist**  **Judge 3** | **Cardiologist**  **Judge 4** | **Cardiologist**  **Judge 5** | **Percentage of**  **cardiologists**  **with a rating who consider image sufficient to evaluate clinical parameter** | **Is Percentage > 50% ?**  **(i.e. majority vote)** |
| 101 | N1 | S1 | 1 | 1 | 0 | 1 | 0 | 60% | 1 |
| 102 | N1 | S1 | 1 | 0 | 0 | 0 | 0 | 25% | 0 |
| … | N1 | S1 | 1 | 0 | 0 | not reported | not reported | 33% | 0 |
| 130 | N1 | S1 | 1 | 1 | not reported | not reported | not reported | 100% | 1 |
| 131 | N2 | S1 | not reported | not reported | not reported | not reported | not reported | not evaluable | not evaluable |
| 132 | N2 | S1 |  |  |  |  |  |  |  |
| 133 | N2 | S1 |  |  |  |  |  |  |  |
| … | N2 | S1 |  |  |  |  |  |  |  |
| 158 | N2 | S1 |  |  |  |  |  |  |  |
| 159 | N2 | S2 |  |  |  |  |  |  |  |
| 160 | N2 | S2 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| … | … |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 239 | N8 | Sk | 0 | 1 | 1 | 1 | 1 | 80% | 1 |
| 240 | N8 | Sk | 1 | 0 | 0 | 0 | 1 | 40% | 0 |

Example of View-Level Assessment(View-level evaluation)

Table 2 View Level= PLAX

{repeat for other views}

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **MRMC**  **nomenclature** | **Readers:**  **Mode A** | **Readers:**  **Mode B** |  | | | | |  | **Binary Outcome** |
|  |  |  | **ACEP rating (1-5) of view-specific image quality** | | | | | **Aggregate image quality across 5 cardiologists** |  |
| **Patient ID** | **Nurse assigned**  **to acquire STUDY echocardiography** | **Sonographer assigned to acquire**  **CONTROL echocardiography** | **Cardiologist**  **Judge 1** | **Cardiologist**  **Judge 2** | **Cardiologist**  **Judge 3A** | **Cardiologist**  **Judge 4** | **Cardiologist**  **Judge 5** | **Median**  **ACEP**  **Score** | **Is median score >= 3?** |
| 101 | N1 | S1 | 1 | 2 | 3 | 4 | 5 | 3 | 1 |
| 102 | N1 | S1 | 1 | 1 | 1 | 2 | 2 | 1 | 0 |
| … | N1 | S1 | 1 | 2 | 3 | not reported | not reported | 2 | 0 |
| 130 | N1 | S1 | 4 | 3 | not reported | not reported | not reported | 3.5 | 1 |
| 131 | N2 | S1 | not reported | not reported | not reported | not reported | not reported | not evaluable | not evaluable |
| 132 | N2 | S1 |  |  |  |  |  |  |  |
| 133 | N2 | S1 |  |  |  |  |  |  |  |
| … | N2 | S1 |  |  |  |  |  |  |  |
| 158 | N2 | S1 |  |  |  |  |  |  |  |
| 159 | N2 | S2 |  |  |  |  |  |  |  |
| 160 | N2 | S2 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| … | … |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 239 | N8 | Sk |  |  |  |  |  |  |  |
| 240 | N8 | Sk |  |  |  |  |  |  |  |